Ground-Water Oversight at Los Alamos National Laboratory and Surrounding Areas

1994 Through 1995

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ABSTRACT

The New Mexico Environment Department (NMED) Department of Energy Oversight Bureau (DOE OB) conducted ground-water oversight activities during 1994 and 1995 at Los Alamos National Laboratory (LANL) and outlying areas (San Ildefonso Pueblo, Los Alamos County and Santa Fe National Forest). Activities included split and independent sampling, as well as locating and characterizing any known and previously undocumented springs by evaluating temperature values, hydrochemical and discharge data. Samples were analyzed for one or more analytes or parameters: general chemistry, total and dissolved metals, radionuclides, and organics. Anthropogenic constituents were detected within each of the four saturated zones in the Los Alamos area. Field investigations led to the discovery and characterization of several on-site springs which emanate from the Bandelier Formation and canyon alluvium. Surface-water flow measurements were conducted downstream from several of these springs, and data show that they may support perennial flow within portions of Cañon de Valle and Pajarito Canyon. It is suggested that these springs recharge perched ground-water zones within canyon alluvium which have not yet been characterized.

INTRODUCTION

In October 1990, the State of New Mexico entered into an agreement with the U.S. Department of Energy (DOE) to provide environmental oversight, monitoring, and guidance associated with applicable state and federal laws and regulations at DOE facilities. These include air, surfacewater, ground-water, as well as hazardous-and-radioactive-materials issues. Activities associated with the agreement are conducted by the New Mexico Environment Department (NMED). From 1990 to 1994 oversight was performed by individual bureaus within NMED. In January 1995, the NMED DOE Oversight Bureau (OB) was created to address agreement activities. DOE OB performs oversight activities at Los Alamos National Laboratory (LANL), Sandia National Laboratory (SNL), Inhalation Toxicology Research Institute, and the Waste Isolation Pilot Plant. DOE OB personnel are located at all DOE facilities and in Santa Fe. The LANL DOE OB office is located in White Rock and has a staff of six, and is supplemented by technical support personnel in Santa Fe as needed. This report presents oversight activities conducted at LANL and outlying areas by DOE OB staff in 1994 and 1995.

There were two main objectives for the oversight: verification of LANL's data, and general characterization of the ground-water system. This involved obtaining field data (such as specific conductance, temperature, flow amounts, and location of source, etc.) as well as independent or

co-sampling ground water for analysis of constituents of concern. Sampling and monitoring activities were conducted at LANL, San Ildefonso Pueblo, Los Alamos County, and Santa Fe National Forest (Plates 1A and 1B).

The purpose of this ground-water report is to present the results of DOE OB's activities at LANL for 1994 and 1995. This report only illustrates DOE OB data, and very little interpretation is included. Comparison of LANL's data with DOE OB's verification split-sampling results will be evaluated as soon as LANL releases their 1994 and 1995 data.

LOS ALAMOS NATIONAL LABORATORY

SETTING

LANL is located west of the Rio Grande, approximately 40 mi northwest of Santa Fe (Figure 1). Neighboring residential areas include Los Alamos, White Rock and San Ildefonso Pueblo. The Laboratory encompasses approximately 43 mi² on the Pajarito Plateau, an expanse of deeply dissected Bandelier Tuff between the Jemez Mountains and the Rio Grande (Smith, 1938). Mesas and canyons generally trend from northwest to southeast. The elevation of mesa tops ranges from approximately 7850 ft at the edge of the Jemez Mountains to about 6200 ft at their easternmost extent above the Rio Grande.

BACKGROUND

LANL is a multidisciplinary national laboratory that conducts nuclear and non-nuclear research. The Laboratory is operated by the University of California for DOE. Since its inception in 1943, LANL's operations have produced radioactive and non-radioactive materials which have entered the environment via air, surface water and ground water.

ENVIRONMENTAL SURVEILLANCE

Ground-water monitoring at the laboratory was initiated by Los Alamos Scientific Laboratory, United States Geological Survey (USGS) and the Atomic Energy Commission. In 1978, ground-water monitoring activities were taken over by LANL. Test wells, supply wells and springs located on-site and off-site are sampled yearly by LANL's Environment, Safety and Health Division (ESH-18). Samples are analyzed for radionuclides, metals, non-metal inorganics, organics, and general chemistry (major cations/anions). LANL Environmental Surveillance results are published annually. During 1994 and 1995, the DOE OB collected split-samples with LANL's ESH-18 group at numerous ground-water stations.

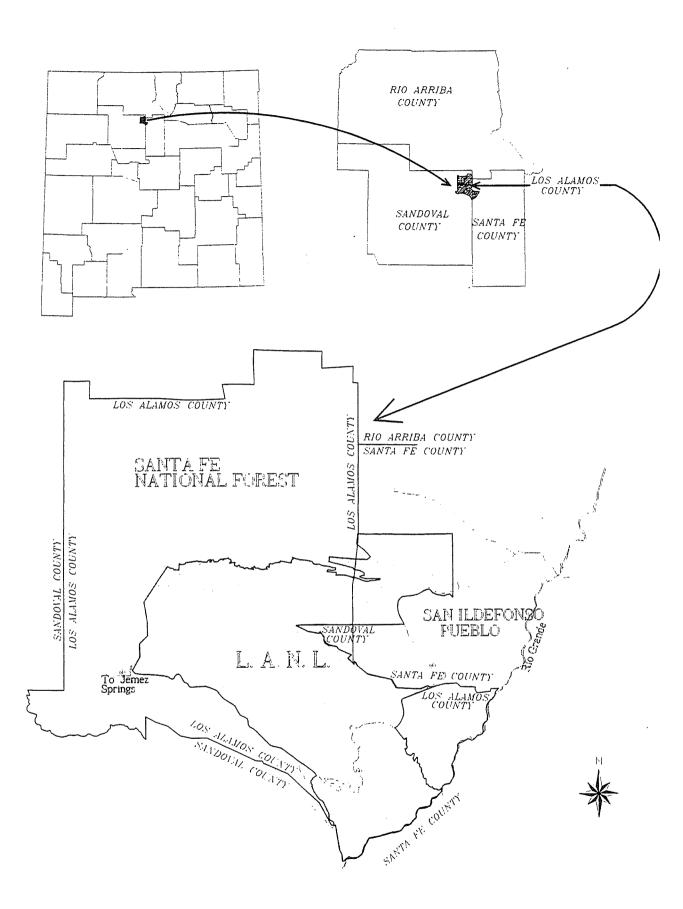


Figure 1. Location of Los Alamos National Laboratory and surrounding area.

ENVIRONMENTAL RESTORATION

In 1987, the DOE established the Environmental Restoration (ER) Project in order to protect the present environment, remediate damages to the environment by past releases of contaminants, and comply with applicable environmental regulations and orders. One goal of the ER project is to characterize ground water at or near potentially contaminated areas, referred to as potential release sites (PRS). Several wells have been drilled in Los Alamos, DP, and Pajarito Canyons by the ER Program in order to assess ground-water quality and acquire characterization data (e.g., saturated thickness). These activities are restricted to shallow and intermediate perched ground water. During 1994 and 1995, the DOE OB collected split-samples with LANL's ER project group at nine ground-water monitoring wells.

HYDROGEOLOGY

GEOLOGY

The geology beneath LANL and associated outlying areas of the Pajarito Plateau is characterized by a thick sedimentary sequence overlain by and intercalated with a series of younger volcanic units. The age of these units range from early Miocene to Pleistocene. The following brief description of units proceeds chronologically, in order of decreasing age.

The Santa Fe Group (Spiegel and Baldwin, 1963) is the oldest unit tapped by area wells. It includes most of the Cenozoic sedimentary strata underlying the Pajarito Plateau, and represents the regional Miocene sedimentary deposits related to the Rio Grande Rift. The Tesuque Formation (Baldwin, 1956) comprises the majority of the Santa Fe Group in this region, and is composed of mainly alluvial/fluvial deposits with subordinate lacustrine deposits and inter-bedded ash-fall tuff layers. The Chamita Formation (Galusha and Blick, 1971) overlies the Tesuque Formation within part of the Pajarito Plateau and Española basin and represents a similar depositional environment.

The Polvadera Group consists of late Miocene to early Pleistocene volcanic deposits and related sedimentary deposits. The Tschicoma Formation (Pliocene) resulted from eruptions that occurred to the west of the Pajarito Plateau, and produced a number of dacitic lavas (Smith, 1938). Beneath the western part of the plateau these are intercalated with the Chamita Formation, Totavi Formation, and the Puye Formation, which itself was formed as alluvial-apron deposits eroded from the Tschicoma eruptive center.

The basalts of Cerros Del Rio and Chino Mesa also formed during and after the Tschicoma eruptions, just to the east and southeast of the Pajarito Plateau. They are intercalated with the Chamita Formation, Totavi Formation, and Puye Formation in the eastern part of the plateau. The Tewa Group encompasses all units formed by regional Pleistocene volcanic activity, and in

the vicinity of the Pajarito Plateau includes the Cerro Toledo interval of the Cerro Toledo Rhyolite Member, the Bandelier Tuff, and the El Cajete pumice. The Tshirege and Otowi Members of the Bandelier Tuff represent thickly bedded sequences of rhyolitic ash-flow tuffs, exhibiting varying degrees of welding throughout. Throughout the Pajarito Plateau the Tshirege Member is the most visible and prominent unit of the Tewa Group, capping virtually all of the mesas within the plateau, and forming steep cliffs and benches that dominate canyon morphology. In this report the authors make no attempt to correlate units as distinguished by Rogers (1995) with Bandelier Tuff nomenclature for the Laboratory's Environmental Restoration Project (Broxton and Reneau, 1995).

HYDROLOGY

Ground water occurs beneath the Pajarito Plateau in four distinct positions: perched within units D, E, and B of the Tshirege Member of the Bandelier Tuff (Rogers, 1995), perched within canyon alluvium, perched within volcanic and sedimentary rock at and beneath the base of the Bandelier Tuff, and the deep aquifer (Dale and Yanicak, 1996). The interconnection of these four saturated zones is unknown; however, historical analytical data from LANL and NMED DOE OB reveal that downward migration of anthropogenic constituents has occurred.

The shallowest perched ground water within units D, E, and B of the Tshirege Member issues as spring discharge from numerous locations in the western and central portions of the Pajarito Plateau. Recharge pathways are unknown, but it is suggested that recharge may be from surfacewater infiltration in the upper reaches of Cañon de Valle, Pajarito Canyon and possibly other canyons west of State Route 501. Flow paths are unknown due to the lack of monitoring wells or control points. Spring water discharges predominantly from fractures, contacts, or parting surfaces between tuff beds of similar lithology, but varying competency (Dale and Yanicak, 1996). Water analyses of several springs show detectible concentrations of dissolved barium and boron, solvents and high explosives.

Perched ground water also occupies part of the Quaternary alluvial fill within many reaches of the canyons. Recharge is assumed to be controlled by the amount of surface-water infiltration from spring discharge, storm-water and snow-melt runoff, and Laboratory outfalls. Flow direction is assumed to be down-canyon or eastward, and may parallel canyon bottom topography. Seepage or downward flow from these zones may exist due to the fact that underlying intermediate perched ground water contain anthropogenic constituents. In addition, preliminary modeling (Stone, 1995) of shallow ground water within the alluvium of Mortandad Canyon suggests downward leakage. Discharge may occur ephemerally at locations such as LA-5.19 and WC-6.25 which issue from canyon alluvium and contain chloride concentrations which are generally comparable to that of alluvium ground water. Additional data need to be collected to determine if these discharges are indeed ephemeral springs. Chemical analyses of alluvium ground water show elevated nitrates, metals and radionuclides.

Intermediate perched ground water located to date occurs approximately midway in depth between the perched ground water in the canyon alluvium and the deep or "main" aquifer, and occupies portions of the Otowi Member (Guaje Pumice Bed) of the Bandelier Tuff, Puye Formation, upper Santa Fe Group, and the volcanic rocks that intercalate with these units (the Tschicoma Formation lavas in the western plateau, and the Chino Mesa/Cerros del Rio lavas in the eastern plateau). Recharge to this aquifer and flow paths are unknown due to the lack of adequate characterization. However, it is suggested that recharge may be from alluvium ground water leaking via fault systems (e.g., Pajarito fault system). Downward flow or leakage from this zone may be occurring due to the presence of contamination in the deep aquifer. Discharge may be occurring at springs along White Rock Canyon (Griggs, 1964), and other springs such as Los Alamos and Basalt Springs, which are located in lower Los Alamos Canyon. Contaminants have been detected in this zone of saturation.

The Pajarito Plateau overlies a portion of the deep aquifer, which ranges to the north, south, and west beyond the plateau. This mode of ground-water resides within the lower Puye Formation, Tschicoma Formation, and the Santa Fe Group. The depth of the deep aquifer ranges from tens of feet near the Rio Grande to approximately 1300 ft below mesa tops near the west central Laboratory boundary. Recharge is theorized to be from seepage along small streams and rivulets on the lower slopes of the Sierra de los Valles (Griggs, 1964). Some recharge may be from intermountain basins such as the Valle Grande (Purtymun, 1984). Flow is from the west to the east and southeast, where a part may discharge through seeps and springs into White Rock Canyon on the Rio Grande (Purtymun, 1995). LANL and NMED DOE OB analytical data (historical and recent) from several deep-aquifer test wells (e.g., TW-4) show elevated concentrations of nitrate, trace metals, tritium (3H), and strontium-90 (90Sr).

DATA COLLECTION METHODS

FIELD ACTIVITIES

Specific conductance, pH, and temperature were the field parameters routinely measured at most ground-water sampling sites (Plates 1A and 1B). Generally, field-parameter measurements are taken at the spring discharge point or from the first water discharged after purging the well. In 1994, several springs monitored by LANL's ESH-18 group along White Rock Canyon were sampled by LANL and DOE OB at the point at which spring-flow enters the Rio Grande. Such points were some distance from the source of the springs. Therefore, physical and hydrochemical data obtained may not represent true ground-water conditions. In 1995 DOE OB corrected this by locating, sampling, and marking these springs at their source.

All pH and temperature data were obtained using an Orion Model 290A ion-specific meter with an automatic-temperature-compensated electrode. Specific conductance was measured using an Orion Model 124 or 126 meter. Field equipment was calibrated according to manufacturer's specifications prior to use.

Flow measurements were conducted by utilizing culverts and temporary diversion structures located downstream from springs. Measurements were determined by using the bucket-and-stop-watch method. Multiple measurements were made in order to acquire an average value.

NMED DOE OB personnel performed ground-water (springs) reconnaissance activities on-site and off-site during excursions within canyon bottoms. The accurate location of all springs was determined by using a Global Positioning System (GPS), aerial photos, LANL FIMAD orthophotos, and field observations corresponding to referenced points on USGS topographic maps (7.5 minute quadrangle).

SAMPLING PROCEDURES

Well samples analyzed by DOE OB were collected by LANL's ESH-18 and ER project personnel, and DOE OB staff using LANL standard operating procedures. Generally, Environmental Surveillance (ES) and independent spring samples were collected at their source by DOE OB personnel. In order to eliminate the chance for cross-contamination, samples were collected using dedicated pre-cleansed polyethylene or stainless-steel scoops. Scoops were rinsed with sample water prior to sampling. Clean, unused vinyl gloves were worn at each sampling site.

Samples were analyzed for one or more of several constituents: major cations and anions, ammonia, nitrate+nitrite as nitrogen, total phosphate as phosphorous, total and dissolved trace metals, total and dissolved radionuclides, high-explosive compounds, volatile- and semi-volatile-organic compounds, and polychlorinated biphenyls. Samples were analyzed in accordance with the latest edition of U.S. Environmental Protection Agency's (EPA) SW-846/600 methods, including EPA's method-detection limits and holding times (from sampling date). Unless noted otherwise, all samples were stored and shipped via overnight carrier at an approximate temperature of 4 $^{\circ}$ C. Samples analyzed for total metals (non-radioactive and radioactive) were acidified in the field or at the analytical laboratory. Samples analyzed for dissolved metals were passed through a 0.45 μ m filter prior to acidification. Non-metal inorganics (e.g., nitrate+nitrite as nitrogen) were preserved with sulfuric acid in the field. Table 1 illustrates the type of containers, preservatives, methods, etc., used.

QUALITY ASSURANCE/QUALITY CONTROL

NMED's contract laboratories are responsible for establishing the precision and accuracy of analytical procedures. Quality-control procedures include the analysis of replicate, split, spiked and blank samples. Data from such procedures are evaluated and documented by the laboratory prior to submittal to NMED. Several external-duplicate samples were collected, as noted in the data tables. Laboratory quality-control guidelines will be provided by the bureau upon request.

Table 1. Methods, container type and preservatives used for sampling analytes.

		CONTAINER	PRESERVATION
ANALYTE	METHOD	TYPE	(dissolved/totals)
Metals (dissolved/totals)			
Aluminum (Al)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Antimony (Sb)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Arsenic(As)	6010, 7060	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Barium(Ba)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Beryllium(Be)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Boron(B)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Cadmium(Cd)	6010, 7131	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Cobalt(Co)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Copper(Cu)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Iron(Fe)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Lead(Pb)	6010, 7421	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Lithium(Li)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Magnesium(Mg)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Manganese(Mn)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Mercury(Hg)	7471	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Molybdenum(Mo)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Nickel(Ni)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Potassium(K)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Selenium(Se)	6010, 7740	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Silicon(Si)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Silver(Ag)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Sodium(Na)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Strontium(Sr)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Thallium(Th)	6010, 7841	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Tin(Sn)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Vanadium(V)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Zinc(Zn)	6010	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Non-metal inorganics			
Ammonia	350.1	1 Liter Plastic	Sulfuric Acid - pH <2
Nitrate+Nitrite as Nitrogen	353.2	1 Liter Plastic	Sulfuric Acid - pH <2
Total Kjeldahl Nitrogen	351.2	1 Liter Plastic	Sulfuric Acid - pH <2
Total Phosphate as Phosphorus	365.1	1 Liter Plastic	Sulfuric Acid - pH <2
Anions & general			
chemistry			
Chloride(CI)	300.0, 325.2	1 Liter Plastic	Unpreserved
Bicarbonate(HCO3)	2320B, 310.1	1 Liter Plastic	Unpreserved
Sulfate(SO4)	300.0, 375.4	1 Liter Plastic	Unpreserved
Carbonate(CO3)	2320B, 310.1	1 Liter Plastic	Unpreserved
Floride(F)	340.2	1 Liter Plastic	Unpreserved
Total Dissolved Solids(TDS)	160,1	1 Liter Plastic	Unpreserved
Total Suspended Solids(TSS)	160.2	1 Liter Plastic	Unpreserved
Radiochemical (dissolved & totals)			
•		1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Gross alpha	Gas prop. counter Gas prop. counter	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Gross beta	• •	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Strontium-90	Gas prop. counter	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Cesium-137	Gamma spectroscopy		After Filtration-Nitric/Field Acidified-Nitric
Americium-241	Alpha & gamma spectroscopy Alpha spectroscopy	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Plutonium-239/240&238 Tritium	Liquid scintillation	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Uranium-234/235/238	Alpha spectroscopy	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
Total uranium	Laser-induced kinetic	1 Liter Plastic	After Filtration-Nitric/Field Acidified-Nitric
	phosphorimetry		
Organic compounds			
Volatile organics	8010, 8020, 8240, 8260, 502.2 (EPA-SDWA)	2X-40 ml Glass Vial with septum	3 Drops HCl
Semi-volatile organics, polychlor- inated biphenyls, etc.	8270, 525 (EPA-SDWA). 8080	1 Liter Amber Glass	Unpreserved
High explosives	8330	1 Liter Amber Glass	Unpreserved

Note: Dissolved metals/radionulcides samples were filtered through a 0.45 um filter prior to acidification

HYDROCHEMICAL RESULTS

WELLS

DOE OB sampled numerous monitoring wells and water-supply wells on-site and off-site during 1994 and 1995 (Table 2) (Plates 1A and 1B). Analytical results (Appendices A through F) appear to indicate that each mode of ground-water occurrence has been impacted by man-made activities. Due to the lack of background hydrochemical data (i.e., no LANL wells or data suitable for background comparisons), data comparison between monitoring locations was used to make a reasonable assumption as to whether elevated concentrations exist within each zone of saturation. That is, the concentration ranges noted within each zone of saturation were compared and used as an indicator for estimating whether man-made constituents might be present. It should be noted that a limited suite of analyses was performed at each sampling location, and, therefore, data may not adequately represent water quality or maximum levels of contamination. The following describes ranges and concentrations of specific contaminants such as ⁹⁰Sr or nitrate+nitrite as nitrogen (NO₂-NO₂) in each mode of occurrence.

Natural and anthropogenic constituents were detected within the deep aquifer. The following data were obtained from LANL deep aquifer test wells only. Activity concentration (pCi/L) ranges for specific parameters were: strontium-90 (90 Sr) < 0.69 to 6.59; plutonium-238 (238 Pu) < 0.02 to 0.135; plutonium-239/240 ($^{239/240}$ Pu) < 0.008 to 0.09; americium-241 (241 Am) 0.099 to 0.144; gross alpha (\propto) < 0.60 to 9.55; and gross beta (β) < 2.0 to 14.19. Total uranium (U) and NQ-NO₃ concentrations range from 0.171 to 2.821 μ g/L and < 0.1 to 6.2 mg/L respectively. The radionuclides 3 H and cesium-137 (137 Cs) were not detected above analytical detection limits.

Four intermediate aquifer wells were sampled. The following data may indicate the presence of elevated natural and man-made constituents: 1) 3H was detected at 2607.2 pCi/L at TW-2A in 1994, 2) in 1995, TW-1A showed NO₂-NO₃ at 4.7 mg/L, and 3) LADP-3 showed 3H at 1470 pCi/L,gross \propto at 11.7 pCi/L and gross β at 9.5 pCi/L in 1995. The radionuclides 90 Sr, 238 Pu, $^{239/240}$ Pu, 241 Am, 137 Cs were not detected above analytical detection limits.

A total of 18 perched ground-water (canyon alluvium) wells were sampled, and data show that anthropogenic constituents exist in Canada del Buey, Los Alamos, Mortandad, Pajarito, and Pueblo Canyons. Maximum activity concentrations (pCi/L) include the following: 1) 3H at 22137.9 and gross β at 141.57 in Mortandad Canyon, 2) 90 Sr at 39.23, 234 U at 4.44, 235 U at 0.14, 238 U at 3.45, 238 Pu at 0.058, $^{239/240}$ Pu at 0.41 and 241 Am at 0.56 in Los Alamos Canyon, and 3) gross α at 55.08 and total uranium at 11.299 μ g/L in Pajarito Canyon. The radionuclide 137 Cs was not detected above analytical detection limits. NO₂-NO₃ concentrations range from 0.2 to 63.4 mg/L. Maximum concentrations were detected in wells located in Mortandad Canyon.

One monitoring well (ER ID#03-2664), located at TA-3, was constructed within the upper portion of the Bandelier Tuff and was sampled during 1995. The well was not developed nor purged prior to sampling, and therefore, data may not adequately represent ground-water quality.

Table 2. Location and description of ground-water sampling sites

MELLS		STATION TYPE	X - Y Cooi	dinates	ELEVATION	CASED DEPTH	SCREENED INTERVAL	SATURATED ZONE	ESTIMATED FLOW**
DEEP ACUIFER	STATION ID	(ES, ER or IN)	EASTING	NORTHING	(LSD)	(ft)	(ft)	(INITIAL WATER LEVEL IN FEET)	(gpm)
DEEP ACUIFER		7							
TV-1 ES 509888.88 1771974.36 6369.19* 642* 532-842* р-уу Рг. (188) NA NA TV-1 TV-1 ES 440071.98 1777167-29 6648.1* 834* 758-824* р-уу Рг. (188) NA NA NA HERONO STATE AND STATE	WELLS	_							
TW-2 ES 499691-98 1772696-78 698-31* 15* 178-698-78 80-5-15* 177-178-18* 177-18* 18* 177-18* 18* 177-18* 18* 177-18* 19* 177-	DEEP AQUIFER								
TW-3 ES 49806.28 177766.87 6959.31 1810 800-815 Poly #m./(#4) NA TW-6 ES 498076.78 177672.32 17846.97 207 1805-195-1065 Poly #m./(#4) NA TW-6 ES 498076.78 177693.84 1807-196 1805-195-1065 Poly #m./(#4) NA DT-9 ES 498050.79 175439.81 8935 1501* 1040-15007* Chico Meas Based Unit (**1011*) NA DT-9 ES 498720.25 175439.81 8935 1501* 1040-15007* Chico Meas Based Unit (**1011*) NA DT-9 ES 498720.25 175439.81 8935 1501* 1040-15007* Chico Meas Based Unit (**1011*) NA DT-9 ES 498720.25 175439.81 8935 1501* 1040-15007* Chico Meas Based Unit (**1011*) NA DT-9 ES 498720.25 175439.81 8935 1501* 1040-15007* Chico Meas Based Unit (**1011*) NA DT-9 ES 498720.25 17724.88 6750 Poly *m./(**1011*) NA DT-9 ES 498730.78 177720.68 650.4* 32* 225* 215-225* 225* 215-225* 225* 215-225* 225* 225* 215-225* 225* 225* 225* 225* 225* 225* 225	TW-1	ES	509888.88	1771974.36	6369.19*	642*	632-642*	Puye Fm.*(585)	NA
TW-4 ES 49317.57 170393.45 0 877.62 9 59-1055 95-1055	TW-2	ES	494091.98	1777167.29	6648.1*	834*	768-824*	Puye Fm.*(759)	NA
ТУК-8 DT-5A DT-5A DT-5B ES 48584.75 DT-79 ES 48582.75 177447 1772-1392 1774-	TW-3	ES	497506.83	1772966.97	6595.31*	815*	805-815*	Puye Fm.*(743)	NA
DT-5A	TW-4	ES	483852.17	1777527.32	7244.6*	1205*	1195-1205*	Tschicoma Fm.*(1171)	NA
DT-10	TW-8	ES	492175.75	1769358.45	6877.62*	1065*	953-1065*	Puye Fm."(968)	NA
DT-10	DT-5A			1754449.25				Chino Mesa Basalt Unit 2*(1173)	
NTERNEDATE AQUIFER NO.CANCESERDIMENTARY									
TV-1-1A	DT-10	ES	488720.25	1754434.79	7020*	1409*	1080-1390?*	Chino Mesa Basatt Unit 2*(1085)	NA
TW-1A TW-2A ES 508834 88 1772014.66 6389.28* 225* 215-225* Chino Mesa Basati unit 3*(184) TW-2A ES 49898978 1777396.95 6834.8** 322** 295.50** 312** 127-132** MA LAD(A)-1.1 EA 498265.97 1773976.95 6834.8** 322** 295.50** 316-326** 326	INTERMEDIATE AQUIFER								
TW-2A ES 49393978 1777236.08 6850.4* 132* 127-132* Puys Rn: (121) NA LADP-3 ER 49270.64 1773254.47 6755** 326** 326** 326** Guaja Min: **(NA) NA LADP-3 ER 49270.64 1773254.47 6755** 326** 326** 326** Guaja Min: **(NA) NA NA LADP-3 ES 487625.76 1774148.81 7010* NA	(VOLCANICS/SEDIMENTARY)								
LAO(IA)-1.1 ER	TW-1A	ES	509834.88	1772014.66	6369.28*	225*	215-225*	Chino Mesa Basalt Unit 3*(188)	NA
PERCHED AQUIFER AULUNUM AURUND	TW-2A							Puye Fm.*(121)	
Description	7 7								
LAQ-0.7	LADP-3	ER	492770.64	1773254.47	6755^^	326^^	316-326^^	Guaje Mbr. ^^(NA)	NA
LAO-0.7 ES 487625.76 1774148.81 7010^ NA NA Allevium, Bandelier Tuff 7(NA) NA LAO-1 ES 489092.9 1773771.66 639.24* 28* 8-28* Allevium, Bandelier Tuff 7(NA) NA LAO-2 ES 47939.59 177303.78 6592.97* 32* 12-32* Allevium, Bandelier Tuff 7(NA) NA LAOR-1 ES 488438.2 1774099.12 6860^ NA NA Allevium, Bandelier Tuff 7(NA) NA LAO-8 ER 474753.01 1774887.17 7322.57* 28* 11.8-26.8** Allevium, Bandelier Tuff 7(NA) NA LAO-9.3 ER 485276.74 1774295.48 6987.92* 11.8-26.8** Allevium, Bandelier Tuff 7(NA) NA LAO-0.6 ER 486803.21 1774178.51 6910.34** 13.6** 8-13** Allevium, Bandelier Tuff 7(NA) NA LAO-0.9 ER 487990.85 1774172.51 6991.34** 13.6** 8-13** Allevium, Bandelier Tuff 7(NA) NA LAO-0.91 ER 488564.38 1774046.48 6981.16** 15** 9.5-14.5** Allevium, Bandelier Tuff 7(NA) NA PO-2 ES 501699.84 1757238.29 6618.3* 9.5* 1.5-9.5* Allevium, Bandelier Tuff 7(NA) NA PCO-2 ES 501699.84 17552738.29 6618.3* 9.5* 1.5-9.5* Allevium (3.3) NA PCO-3 ES 506094.38 1756275.66 6546.6* 17.7* 5.7-17.7* Allevium (3.1) NA Allevium	**************************************								
LAC-1	Los Alamos Canyon								
LAO-2 ES 479338.59 1773037.84 6592.917 32° 12-32° Alavium*(11) NA LAO-8 LAO-8 ER 474753.01 1774895.12 8860^ NA NA NA Alavium, Bandelier Tuff 7(NA) NA LAO-0.3 ER 455276.74 177495.48 6967.82° 11.4" 59-10.9" Alavium, Bandelier Tuff 7(NA) NA LAO-0.6 ER 458527.74 1774785.16 6967.82° 11.4" 59-10.9" Alavium, Bandelier Tuff 7(NA) NA LAO-0.8 ER 45799.85 1774125.15 6887.04" 13" 7.5-12.5" Alavium, Bandelier Tuff 7(NA) NA LAO-0.91 ER 488564.38 177409.64.89 6867.10" 15" 9.5-14.5" Alavium, Bandelier Tuff 7(NA) NA LAO-0.91 ER 488564.38 1774046.48 6861.16" 15" 9.5-14.5" Alavium, Bandelier Tuff 7(NA) NA PO-0.1 ES 497671.33 1759648.89 6687° 12.3° 4.3-12.3° Alavium*(1.3.1) NA PCO-2 ES 501699.84 1767238.29 6618.3° 9.5° 1.5-9.5° Alavium*(1.3.1) NA PCO-3 ES 506094.38 1755275.66 6546.6° 17.7" 5.7-17.7 Alavium*(2.1.1) NA BEID# 18-01685 ER 499626.87 1758154.76 6650° NA NA NA Alavium*, Bandelier Tuff 7(NA) NA MOrtandad Canyon MCO-5 ES 492035.8 1769475.27 6875.8° 46° 21-46° Allavium*(2.1.1) NA Alavium*(2.1.1) NA MCO-7 ES 494200.28 1768423.87 6827.4° 69° 39-69° Allavium*(2.2.1) NA Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817° 49° 34-44° Bandelier Tuff*(NA) NA PERCHED AQUIFER (BHALLOW/OLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460° NA NA NA Bandelier Tuff*(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014° 1519° 272-15137° Tesuque Fm*(250) NA	LAO-0.7	ES	487625.76	1774148.81	7010^	NA	NA	Alluvium, Bandelier Tuff 7(NA)	NA
LAOR-1 ES 49843.2 1774099.12 6860^ NA NA Albrium, Bandelier Tuff 7(NA) NA LAO-B ER 474753.01 1774897.17 7322.57^ 28^ 11.4^ 59-10.9^ Albrium, Bandelier Tuff 7(NA) NA LAO-0.3 ER 485276.74 1774295.48 6967.82^ 11.4^ 59-10.9^ Albrium, Bandelier Tuff 7(NA) NA LAO-0.6 ER 486903.21 1774178.51 6910.34^ 13.6^ 8-13^ Albrium, Bandelier Tuff 7(NA) NA LAO-0.91 ER 489504.38 1774046.48 6861.16^ 15^ 910.34^ 13.6^ 8-13^ Albrium, Bandelier Tuff 7(NA) NA LAO-0.91 ER 489564.38 1774046.48 6861.16^ 15^ 95.14.5^ Albrium, Bandelier Tuff 7(NA) NA LAO-0.91 ES 497871.33 1759648.89 6687 12.3 Albrium (1.3) NA PCO-2 ES 501699.84 1757233.29 6618.3 9.5 1.5-9.5 Albrium (1.3) NA PCO-2 ES 501699.84 1757233.29 6618.3 9.5 1.5-9.5 Albrium (1.3) NA ER ID# 18-01685 ER 499626.87 1758154.76 6650^ NA NA Albrium (1.3) NA Albrium (1.3) NA Mortandad Canyon MCO-5 ES 49203.8 1769475.27 6675.8* 46° 21-46° Albrium (1.3) NA MCO-7 ES 494200.28 1768423.87 6827.4* 69° 39-69° Albrium (1.2) NA Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817* 49° 34-44* Bandelier Tuff 7(NA) NA PERCHED AQUIFER (BMALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460^ NA NA Bandelier Tuff 7(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-15137* Tesuque Fm*(250) NA	LAO-1	ES	489092.9	1773771.66	6836.24*	28*	8-28*	Alkıvium*(4.6)	NA
LAQ-B ER 474753.01 1774897.17 7322.57\(28\) 11.8-26.8\(Alkerium, Bandelier Tuff Y(NA) \) NA LAQ-0.6 ER 485276.74 1774795.15 6907.92\(11.4\) 5.9-10.9\(Alkerium, Bandelier Tuff Y(NA) \) NA LAQ-0.6 ER 48590.85 1774125.15 6887.04\(13.6\) 13.6\(8.13\) Alkerium, Bandelier Tuff Y(NA) NA LAQ-0.91 ER 48590.85 1774125.15 6887.04\(15\) 13\(15\) 7.5-12.5\(Alkerium, Bandelier Tuff Y(NA) \) NA LAQ-0.91 ER 48564.38 1774046.48 6861.16\(15\) 15\(95.14.5\(Alkerium, Bandelier Tuff Y(NA) \) NA Pajarito Canyon PCQ-1 ES 497871.33 1759648.89 6687* 12.3\(4.3-12.3\) 9.5\(1.5-9.5\) Alkerium(1.3) NA PCQ-2 ES 501699.84 1757238.29 6618.3\(9.5\) 1.5-9.5\(Alkerium(1.3) \) NA PQQ-2 ES 501699.84 1757238.29 6618.3\(9.5\) 1.5-9.5\(Alkerium(1.3) \) NA ER ID# 18-01685 ER 499626.87 1758154.76 6650\(NA \) NA NA Alkerium(1.1) NA Alkerium(1.1) NA MOrtandad Canyon MOC-5 ES 492035.8 1769475.27 6875.8\(46\) 21-46\(Alkerium(1.7)\(LAO-2	ES	479338.59	1773037.84	6592.97*	32*	12-32*	Alluvium*(11)	NA
LAO-0.3 ER 465276.74 1774295.48 6967.82^\times 1.14^\times 5.9-10.94^\times Alburium, Bandelier Tuff 7(NA) NA LAO-0.6 ER 486803.21 1774125.15 6897.04^\times 13.6^\times Berl 13.6^\times Alburium, Bandelier Tuff 7(NA) NA LAO-0.91 ER 488564.38 1774046.48 6861.16^\times 15^\times 9.5-14.5^\times Alburium, Bandelier Tuff 7(NA) NA LAO-0.91 ER 488564.38 1774046.48 6861.16^\times 15^\times 9.5-14.5^\times Alburium, Bandelier Tuff 7(NA) NA Alburium (1.3) NA Alburium (1.3) NA Alburium (1.3) NA Pajarito Canyon PCO-1 ES 497871.33 1759648.89 6687* 12.3* 4.3-12.3* Alburium (1.3) NA PCO-2 ES 501699.84 1757238.29 618.3* 9.5* 1.5-9.5* Alburium (1.3) NA PCO-3 ES 506094.38 1755275.66 6546.6* 17.7* 5.7-17.7* Alburium (1.3) NA Alburium (1.3)	LAOR-1	ES	488438.2	1774099.12	6860^	NA	NA	Alluvium, Bandelier Tuff ?(NA)	NA
LAO-0.6								Alluvium, Bandelier Tuff 7(NA)	
LAQ-0.8 ER 487990.85 1774125.15 6887.04^ 13^ 7.5-12.5^ Alberbarm, Bandelier Tuff ?(NA) NA LAQ-0.91 ER 488584.38 1774046.48 6881.16^ 15^ 9.5-14.5^ Alberbarm, Bandelier Tuff ?(NA) NA PCO-2 ES 501699.84 1757238.29 6618.3 9.5 1.5-9.5 Alberbarm ?(1.3) NA PCO-2 ES 501699.84 1757238.29 6618.3 9.5 1.5-9.5 Alberbarm ?(3.1) NA PCO-2 ES 501699.84 1757238.29 6618.3 9.5 1.5-9.5 Alberbarm ?(3.1) NA PCO-2 ES 506094.38 1755275.66 6546.5 17.7 5.7-17.7 Alberbarm ?(3.1) NA NA ER ID# 18-01685 ER 499626.87 1758154.76 6650^ NA NA Alberbarm ?(3.1) NA NA Alberbarm ?(3.1) NA NA NA Alberbarm ?(3.1) NA NA MORTANDE CANNON PROBLEM								Alluvium, Bandelier Tuff ?(NA)	
Pajarito Canyon									
Pajarito Canyon PCO-1 ES 497871.33 1759648.89 6687* 12.3* 4.3-12.3* Albrivim*(1.3) NA PCO-2 ES 501699.84 1757238.29 6618.3* 9.5* 1.5-9.5* Albrivim*(2.1) NA PCO-3 ES 506094.38 1755275.66 6546.6* 17.7* 5.7-17.7* Albrivim*(2.1) NA ER ID# 18-01685 ER 499626.87 1758154.76 6650^ NA NA NA Albrivim*, Bandeller Tuff 7(NA) NA Mortandad Canyon MCO-5 ES 492035.8 1769475.27 6875.8* 46* 21-46* Albrivim*(24.4) NA MCO-7 ES 494200.28 1768423.87 6827.4* 69* 39-69* Albrivim*(24.7) NA Pueblo Canyon APCO-1 ES 509080.06 1772851.44 6367.53* 19.7* 4.7-14.7* Albrivim*(6.2) NA Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817* 49* 34-44* Bandeller Tuff*(NA) NA PERCHED AQUIFER (SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460^ NA NA Bandeller Tuff*(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-15137* Tesuque Fm*(250) NA									
PCO-1 ES 497871.33 1759648.89 6687* 12.3* 4.3-12.3* Alkovium*(1.3) NA PCO-2 ES 501699.84 1757238.29 6618.3* 9.5* 1.5-9.5* Alkovium*(6.3) NA PCO-3 ES 506094.38 1755275.66 6546.6* 17.7* 57-17.7* Alkovium*(3.1) NA ER ID#*18-01685 ER 499626.87 1758154.76 6650^ NA NA NA Alkovium, Bandelier Tuff ?(NA) NA MORTANDA Canyon MCO-5 ES 492035.8 1769475.27 6875.8* 46* 21-46* Alkovium, Bandelier Tuff ?(NA) NA MCO-7 ES 494200.28 1768423.87 6827.4* 69* 39-69* Alkovium*(3.2) NA Pueblo Canyon APCO-1 ES 509080.06 1772851.44 6367.53* 19.7* 4.7-14.7* Alkovium*(6.2) NA Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817* 49* 34-44* Bandelier Tuff?(NA) NA CDBO-7 ES 492709.5 1763139.81 6771* 44* 29-39* Bandelier Tuff?(NA) NA PERCHED AQUIFER (BHALLOW VOLCANICS) ER ID#*0.3-2664 ER 476457.99 1773216.64 7460^ NA NA NA Bandelier Tuff?(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA	LAO-0.91	EK	488564.38	1774046.48	6861.16**	15~	9.5-14.5**	Alluvium, Bandelier Tuff 7(NA)	NA
PCO-2 ES 501699.84 1757238.29 6618.3* 9.5* 1.5-9.5* Alavvium*(6.3) NA PCO-3 ES 506094.38 1755275.66 6546.6* 17.7* 5.7-17.7* Alavvium*(3.1) NA ARVIVIDATION NA PCO-3 ES 506094.38 1755275.66 6546.6* 17.7* 5.7-17.7* Alavvium*(3.1) NA ARVIVIDATION NA NA NA NA ARVIVIDATION NA NA NA ARVIVIDATION NA NA NA ARVIVIDATION NA NA NA NA ARVIVIDATION NA NA NA NA ARVIVIDATION NA	Pajarito Canyon								
PCO-3 ES 506094.38 1755275.66 6546.6° 17.7° 5.7-17.7° Albuvium (3.1) NA PRI 18-01685 ER 499626.87 1758154.76 6650° NA NA NA Albuvium, Bandelier Tuff 7(NA) NA	PCO-1	ES	497871.33	1759648.89	6687*	12.3*	4.3-12.3*	Alluvium*(1.3)	NA
ER ID# 18-01685 ER 499626.87 1758154.76 6650^ NA NA NA Alkuvium, Bandelier Tuff 7(NA) NA Mortandad Canyon MCO-5 ES 492035.8 1769475.27 6875.8* 46* 21-46* Alkuvium*(24.5) NA MCO-7 ES 494200.28 1768423.87 6827.4* 69* 39-69* Alkuvium*(39.7) NA Pueblo Canyon APCO-1 ES 509080.06 1772851.44 6367.53* 19.7* 4.7-14.7* Alkuvium*(6.2) NA Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817* 49* 34-44* Bandelier Tuff?*(NA) NA CDBO-7 ES 492709.5 1763139.81 6771* 44* 29-39* Bandelier Tuff?*(NA) NA PERCHED AQUIFER (SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460* NA NA Bandelier Tuff?*(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA	PCO-2							Alluvium*(6.3)	
Mortandad Canyon MCO-5 ES 492035.8 1769475.27 6875.8* 46* 21-46* Alkrvium*(24.6*) NA MCO-7 ES 494200.28 1768423.87 6827.4* 69* 39-69* Alkrvium*(39.7*) NA Pueblo Canyon APCO-1 ES 509080.06 1772851.44 6367.53* 19.7* 4.7-14.7* Alkrvium*(6.2*) NA Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817* 49* 34-44* Bandelier Tuff*(NA) NA CDBO-7 ES 492709.5 1763139.81 6771* 44* 29-39* Bandelier Tuff*(NA) NA PERCHED AQUIFER (SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460^* NA NA NA Bandelier Tuff*(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA								Alluvium*(3.1)	
MCO-5 ES 492035.8 1769475.27 6875.8* 46* 21-46* Alkıvism*(24.6) NA MCO-7 ES 494200.28 1768423.87 6827.4* 69* 39-69* Alkıvism*(29.7) NA Pueblo Canyon APCO-1 ES 509080.06 1772851.44 6367.53* 19.7* 4.7-14.7* Alkıvism*(5.2) NA Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817* 49* 34-44* Bandelier Tuff*(NA) NA CDBO-7 ES 492709.5 1763139.81 6771* 44* 29-39* Bandelier Tuff*(NA) NA PERCHED AQUIFER (SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460* NA NA NA Bandelier Tuff*(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA	ER ID# 18-01685	ER	499626.87	1758154.76	6650^	NA	NA	Alluvium, Bandelier Tuff ?(NA)	NA
MCO-7 ES 494200.28 1768423.87 6827.4° 69° 39-69° Alterium (39.7) NA Pueblo Canyon APCO-1 ES 509080.06 1772851.44 6367.53° 19.7° 4.7-14.7° Alterium (6.2) NA Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817° 49° 34-44° Bandelier Tuff? (NA) NA CDBO-7 ES 492709.5 1763139.81 6771° 44° 29-39° Bandelier Tuff? (NA) NA PERCHED AQUIFER (SHALLOW VOLCANICS) (SHALLOW VOLCANICS) ER 476457.99 1773216.64 7460° NA NA Bandelier Tuff? (NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014° 1519° 272-1513?° Tesuque Fm*(250) NA	Mortandad Canyon								
Pueblo Canyon APCO-1 ES 509080.06 1772851.44 6367.53* 19.7* 4.7-14.7* Alluvium*(6.2) NA Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817* 49* 34-44* Bandelier Tuff7*(NA) NA CDBO-7 ES 492709.5 1763139.81 6771* 44* 29-39* Bandelier Tuff7*(NA) NA PERCHED AQUIFER (SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460^ NA NA Bandelier Tuff7*(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA	MCO-5	ES	492035.8	1769475.27	6875.8*	46*	21-46*	Alkıvium*(24.6)	NA
APCO-1 ES 509080.06 1772851.44 6367.53° 19.7° 4.7-14.7° Alluvium*(6.2) NA Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817° 49° 34-44° Bandelier Tuff7*(NA) NA CDBO-7 ES 492709.5 1763139.81 6771° 44° 29-39° Bandelier Tuff7*(NA) NA PERCHED AQUIFER (SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460° NA NA NA Bandelier Tuff7*(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014° 1519° 272-1513?° Tesuque Fm*(250) NA	MCO-7	ES	494200.28	1768423.87	6827.4*	69*	39-69*	Alkıvism*(39.7)	NA
Canada de Buey CDBO-6 ES 493613.05 1764538.28 6817* 49* 34-44* Bandelier Tuff?*(NA) NA CDBO-7 ES 492709.5 1763139.81 6771* 44* 29-39* Bandelier Tuff?*(NA) NA PERCHED AQUIFER (SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460^ NA NA Bandelier Tuff?(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA	Pueblo Canyon								
CDBO-6 ES 493613.05 1764538.28 6817* 49* 34-44* Bandelier Tuff?*(NA) NA CDBO-7 ES 492709.5 1763139.81 6771* 44* 29-39* Bandelier Tuff?*(NA) NA PERCHED AQUIFER (SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460^ NA NA Bandelier Tuff?(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA	APCO-1	ES	509080.06	1772851.44	6367.53*	19.7*	4.7-14.7*	Atluvium*(6.2)	NA .
CDBO-7 ES 492709.5 1763139.81 6771* 44* 29-39* Bandelier Tuff7*(NA) NA PERCHED AQUIFER (SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460^ NA NA NA Bandelier Tuff7(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA	Canada de Buey								
PERCHED AQUIFER (SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460^ NA NA Bandelier Tuff7(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA	CDBO-6	ES	493613.05	1764538.28	6817*	49*	3 4-44 *	Bandelier Tuff?"(NA)	NA
(SHALLOW VOLCANICS) ER ID# 03-2664 ER 476457.99 1773216.64 7460^ NA NA Bandelier Tuff7(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA	CDBO-7	ES	492709.5	1763139.81	6771*	44*	29-39*	Bandelier Tuff?*(NA)	NA
ER ID# 03-2664 ER 476457.99 1773216.64 7460^ NA NA Bandelier Tuff?(NA) NA SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA									
SUPPLY WELLS Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA									
Offsite G-1A ES 515122.68 1784091.85 6014* 1519* 272-1513?* Tesuque Fm*(250) NA	ER ID# 03-2664	ER	476457.99	1773216.64	7460^	NA	NA	Bandelier Tuff?(NA)	NA
G-1A ES 515122.68 1784091.85 6014° 1519° 272-1513?° Tesuque Fm*(250) NA	SUPPLY WELLS								
	Offsite								

Table 2 (cont). Location and description of ground-water sampling sites

	STATION				CASED	SCREENED	SATURATED	ESTIMATED
	TYPE	X - Y Cooi	rdinates	ELEVATION		INTERVAL	ZONE	FLOW**
STATION ID	(ES, ER or IN)	EASTING	NORTHING	(LSD)	(ft)	(ft)	(INITIAL WATER LEVEL IN FEET)	(gpm)
Onsite								
0-4	ES	497111.24	1772896.6	6627*	2617?*	1115-2596?*	Puye Fm*(780)	NA
PM-2	ES	497149.31	1772030.0	6715*	2300?*	1001-2280?*	Puye Fm*(823)	NA
PM-3	ES	502342.75	1769325.3	6640*	2552?*	956-2532?*	Puye Fm*(740)	NA
San Ildefonso Pueblo								
LA-5	ES	519742.63	1772347.29	5840*	1750*	440-1740*	Tesuque Fm*(71)	NA
OTOWI HOUSE	ES	532332.69	1774006.29	NA	NA	NA	Santa Fe Grp.?(NA)	NA
OLD COMMUNITY	ES	NA	NA	NA	NA	NA .	Santa Fe Grp.?(NA)	NA
PAJARITO PUMP 1	ES	NA	NA	NA	NA	NA	Santa Fe Grp.?(NA)	NA
PAJARITO PUMP 2	E\$	NA	NA	NA	NA	NA	Santa Fe Grp.?(NA)	NA
WESTSIDE ARTESIAN	ES	NA	NA	NA	NA	NA	Santa Fe Grp.?(NA)	NA
HALLADAY HOUSE	ES	530342.01	1774757.8	NA	NA	NA	Santa Fe Grp.?(NA)	NA
NEW COMMUNITY	ES	NA	NA	NA	NA	NA	Santa Fe Grp.?(NA)	NA
SPRINGS]							
White Rock Canyon								
ANCHO	ES	506679.79	1737332.22	5700*	NA	NA	Totavi Lentil*	30-40
DOE	ES	501924.69	1733797.46	5580^	NA	NA	Chaquehui Fm.*	1-2
LA MESITA	ES	531950.94	1772704.05	5580*	NA	NA	Tesuque Fm.*	1-2
SANDIA	ES	523327.41	1761129.21	5650^	NA	NA	Totavi Lentil*	3-5
OTOWI SPRING	IN	532242.73	1773692.75	5513^	NA	NA	Alluvium?**	1-2
SPRING 1	ES	527508.16	1768075.63	5680^	NA	NA	Tesuque Fm.*	NA
SPRING 2	ES	526901.53	1765835.05	5660^	NA	NA	Tesuque Fm.*	2-5
SPRING 3	ES	520993.04	1753739.24	5550^	NA	NA	Totavi Lentil	15-20
SPRING 3A	ES	520851.35	1753453.41	5530^	NA	NA	Totavi Lentil*	30-35 1-2
SPRING 3AA	ES	520760.52	1751228.59	5460^ 5450*	NA NA	NA NA	Totavi Lentil	2-4
SPRING 3B	ES ES	521092.35 517071.3	1749989.13 1748230	5450* 5420^	NA NA	NA NA	Tesuque Fm.* Totavi Lentil*	30-40
SPRING 4 SPRING 4A	ES	517071.3	1747945.45	5640^	NA.	NA NA	Totavi Lentii*	75-100
SPRING 4AA	IN	515871.67	1748325.44	5630^	NA	NA.	Puye Fm.**	2-4
SPRING 4B	IN	516633.23	1748091.71	5510^	NA.	NA	Slide Block**	2-4
SPRING 4C	IN	516902.87	1748262.8	5460^	NA	NA	Slide Block**	15-20
SPRING 5	ES	514796.39	1743250.01	5560^	NA	NA	Totavi Lentil*	10-15
SPRING 5A	ES	515214.01	1741893.99	5420^	NA	NA	Busatt	NA
SPRING 5B	ES	511501.36	1738110.24	5400^	NA	NA	Chaquehui Fm., Basalt*	NA
SPRING 6	ES	508780.95	1735473.98	5385^	NA	NA	Basalt*	2-4
SPRING 6A	ES	506652.83	1734315.48	5380^	NA	NA	Basalt*	NA
SPRING 8A	ES	503584.16	1734236.86	5560^	NA	NA	Chaquehui Fm.*	5-10
SPRING 9	ES	502931.59	1733680.84	5500^	NA	NA	Chaquehui Fm.*	10-15
SPRING 9A	ES	502177.69	1733748.54	5560^	NA	NA	Chaquehui Fm., Basait*	4-6
SPRING 9B	ES	501881.53	1732564.83		NA	NA NA	Chaquehui Fm., Basalt	1-2 0.5
SPRING 9D	IN	501838.29	1730959.28	5390^	NA	NA	Santa Fe Grp.?"	0.5
Los Alamos Canyon & Tributaries								
D4041#	16.1	E46640 F	4770075.0	6000*	B1A	NA	Takes slane Chine Man David Man	3*
BASALT	IN.	516618.5	1770675.6		NA NA	NA NA	Talus slope, Chino Mesa Basalt Unit 3*	1-3
LOS ALAMOS	IN IN	517253.8 476950.6	1770858.55 1776107.2	7300^	NA NA	NA NA	Chino Mesa Basalt Unit 4* Bandelier Tuff**	5-10
LA-11.2 LA-5.19	IN	503449.3	1771840.69		NA.	NA.	Alluvium?**	0-5
DP DP	NA.	496233.03	1773589.06		NA	NA	Alluvium, Bandelier Tuff?**	?
Pajarito Canyon & Tributaries								
UPPER STARMER'S	IN	472893.5	1767695.79	7490^	NA	NA	Alluvium, Bandelier Tuff*	0-5
CHARLIE'S	IN	473039.72	1767633.05		NA	NA.	Bandelier Tuff*	2-4
PERKINS	IN	473270.57	1767648.06		NA	NA.	Bandelier Tuff*	0-1
GARVEY	IN	473346.84	1767647.23		NA	NA	Bandelier Tuff**	0-0.5
JOSIE	IN	474204.33	1767792.18		NA	NA	Bandelier Tuff*	<1-2
STARMER'S	IN	473384.98	1767653.56		NA	NA	Bandelier Tuff**	10-15
HOMESTEAD	IN	473926.77	1768582.67	7450^	NA	NA	Bandelier Tuff*	5-10
KIELING	IN	474454.01	1767051.89	7400^	NA	NA	Bandelier Tuff?**	4-8
BULLDOG	IN	474765.23	1767092.58	7390^	NA	NA	Bandelier Tuff*	15-20

Table 2 (cont). Location and description of ground-water sampling sites

STATION ID	STATION TYPE (ES, ER or IN)	X - Y Cool	rdinates NORTHING	ELEVATION (LSD)	CASED DEPTH (ft)	SCREENED INTERVAL (ft)	SATURATED ZONE (INITIAL WATER LEVEL IN FEET)	ESTIMATED FLOW** (gpm)
Pajarito Canyon & Tributaries	-continued							
ANDERCON	IN	475690.41	1771290.87	7440^	NA	NA	Bandelier Tuff*	2-3
ANDERSON HANLON	IN	475050.41	1771461.01	7460^	NA.	NA.	Bandelier Tuff*	<1
TW-1.72	IN	478479.38	1770801.66	7460^	NA	NA.	Bandelier Tuff*	<1
SM-30	IN	476305.94	1773019.09	7420^	NA	NA.	Alluvium, Bandelier Tuff?**	0-0.25
SM-30A	IN	476364.56	1772658.21	7410^	NA	NA.	Alluvium, Bandelier Tuff?**	0-0.25
TA-18	IN	493879.97	1760608.01	6760^	NA	NA.	Bandelier Tuff**	1-2
THREEMILE (A)	IN	491678.37	1761503.14	6795^	NA	NA.	Alluvium, Bandelier Tuff?**	0-1
THREEMILE (B)	IN	491678.37	1761503.14	6795^	NA	NA .	Alkevium, Bandelier Tuff?**	6-10
Tensite Canyon								
TS-1.42	IN	486571.11	1768748.04	7160^	NA	NA	Alluvium, Bandelier Tuff?**	0-<1
Water Canyon & Tributaries								
BURNING GROUND	IN	473877.07	1764474.28	7420^	NA	NA	Bandelier Tuff**	10-15
SWSC	IN	473614.58	1764567.59	7430^	NA	NA	Bandelier Tuff*	2-4
MARTIN	IN	474492.29	1761862.85	7430^	NA	NA	Bandelier Tuff*	1-2
PETER	IN	473404.34	1764676.69	7440^	NA	NA	Alluvium, Bandelier Tuff?**	<1-6
HOLLOW	IN	482081.52	1762350.3	7160^	NA	NA	Bandelier Tuff*	0-0.25
FISH LADDER	IN	476606.5	1763122.09	7340^	NA	NA	Alluvium, Bandelier Tuff?**	1-2
8.0-AV	IN	481460.14	1760792.61	7000^	NA	NA	Alluvium, Bandelier Tuff?**	0-4
WC-6.25	IN	484745.68	1757441.12	6800^	NA	NA	Alkuvium, Bandelier Tuff?**	1-2
Misc. Springs								
SACRED	ES	529642.82	1780378.38	5640*	NA	NA	Sante Fe Grp.?**	<1*
GC-10.8	IN	483905.9	1804133.22	7720^	NA	NA	Bandelier Tuff**	5-15
PINE SPRING	IN	489835.71	1803343.44	7216^	NA	NA	Attuvium, Bandelier Tuff?**	2-6
GC-0.36	IN	488401.67	1804201.74	7280^	NA	NA	Alluvium, Bandelier Tuff?**	<1
WATER CANYON GALLERY	ES	467773.05	1761085.64	7560^	NA	NA	Alkuvium, Bandelier Tuff?**	approx. 15

ES - Environmental Surveillance Station ER - Environmental Restoration Station IN - Independent Station

IN - Independent Station
NA - Not determined or applicable

* - Taken from W.D. Purtymun, LA-12883-MS, UC-903, UC-940, January 1995

** - Rock type and estimated flow determined from field observations

* - Estimated elevations from field observations using U.S.G.S. maps and aerial photos

* - Anonymous, 1995

7 - Unknown or unable to interpret
Note: Estimated X - Y coordinates from Bandelier National Monument and Vicinity, Puye, and Guaje Mountain U.S.G.S. 7.5 minute quadrangles.

SPRINGS

A total of 61 springs were sampled during 1994 and 1995 (Table 2) (Plates 1A and 1B). Generally, sampling occurred at springs located on the western edge of the laboratory and in White Rock Canyon. For the purpose of the following discussion, the springs are categorized into three geographically distinct groups: White Rock Canyon (west side), on-site LANL, and off-site (non-DOE property). General characteristics concerning individual springs are given in Table 2. Data from various springs indicate the constituents NO_2 - NO_3 , total U, gross β , volatile organic compounds (VOC's), high explosives (HE), barium (Ba), and boron (B) vary in concentration or activity concentration. All spring data are located in Appendices A through F.

A total of 26 springs were sampled in White Rock Canyon. On each visit during the two-year-sampling period all 26 springs were observed to be flowing. Eight springs (Ancho, Spring 1, Spring 2, Spring 4A, Spring 5A, Spring 5B, Spring 6, and Spring 6A) show NO_2 - NO_3 ranging from 0.1 to 2.1 mg/L. Thirteen springs (Ancho, DOE, Sandia, Springs 1, 2, 3, 3A, 4A, 5, 5A, 8A, 9, and 9A) show U ranging from 0.133 to 9.400 μ g/L. Nine springs (Ancho, Springs 3, 3A, 4A, 5, 5A, 5B, 6, and 6A) show dissolved gross β ranging from 1.89 to 5.55 pCi/L. Hydrochemical species (e.g., bicarbonate) and total dissolved solids from several White Rock Canyon springs are graphically represented on Figure 2. The data appear to show a similar trend between the referenced parameters such that the major cations and anions tend to decrease in concentration from springs located in the upper reach of White Rock Canyon near the mouth of Los Alamos Canyon to the lower reach near Chaquehui Canyon. Based on the observed bicarbonate concentration (177 mg/L) at Sandia Spring, some interconnection may exist between the abnormally high-bicarbonate ground water within Mortandad Canyon alluvium and the zone from which Sandia Spring discharges.

A total of 28 springs were sampled on-site. During the two-year-sampling period 19 springs were observed to be continuously flowing, and nine were observed to be ephemeral or flowing seasonally. Eight springs (Upper Starmer's, Charlie's, Perkins, Starmer's, Homestead, Bulldog, TS-1.42, and Peter) show NO₂-NO₃ ranging from 0.027 to 29.0 mg/L, four springs (Charlie's, Starmer's, TA-18, and Hollow) show U ranging from 0.14 to 1.94 μ g/L, sixteen springs (Charlie's, Starmer's, Homestead, Bulldog, SM-30A, TA-18, Threemile A and B, TS-1.42, Burning Ground, SWSC, Martin, Peter, Hollow, Fish Ladder, and WC-6.25) show gross β values ranging from 2.78 to 45.0 pCi/L. VOC analyses of water from four springs (Burning Ground, SWSC, Martin, and Peter) in the Cañon de Valle area show detectable solvents: cis-1,2dichloroethene at 21 μ g/L, trichloroethene ranging from 0.9 to 3.4 μ g/L, tetrachloroethene ranging from 2.2 to 15 ug/L at SWSC and Peter. HE analyses of water from five springs show detectable HE compounds: 2-amino-4,6/2,6-DNT ranging from 2.3 to 3.3 ug/L at SWSC and Martin, HMX ranging from 1.2 to 1100 ug/L at Threemile (B) and 4.1 at WC-6.25, and RDX ranging from 2.7 to 100 ug/L at Fish Ladder and Martin; 2,4,6-TNT was detected at Threemile(B) at 68 ug/L. Analysis of water from eight springs (Charlie's, Perkins, Homestead, Martin, Peter, Hollow, Fish Ladder, and WC-6.25) showed dissolved Ba ranging from 0.12 to 1.7 mg/L, and that from 12 springs (Charlie's, Homestead, Bulldog, SM-30A, TS-1.42, Burning Ground, SWSC, Martin, Peter, Hollow, Fish Ladder, and WC-6.25) showed dissolved gross β ranging from 0.01 to 1.4 mg/L.

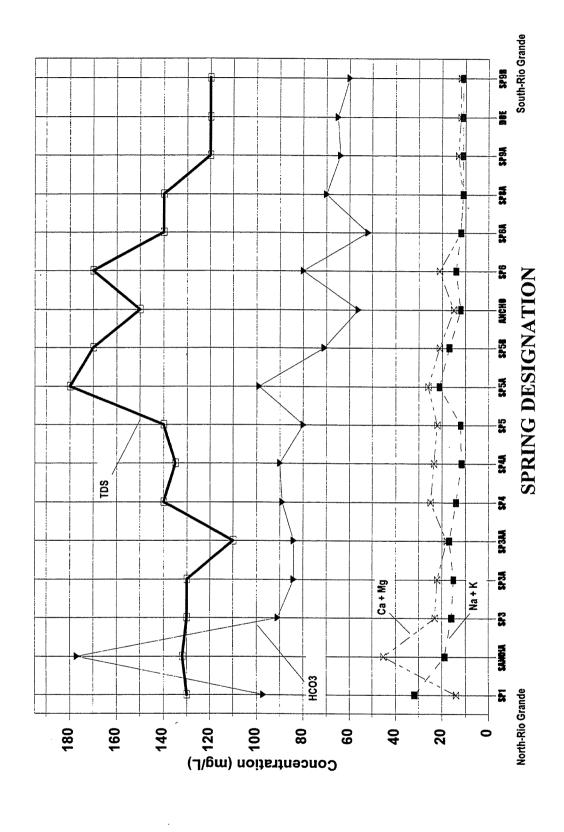


Figure 2. Hydrochemical plot illustrating the relationship between hydrochemical species and total dissolved solids from several springs along White Rock Canyon during 1994 and 1995.

TDS(mg/L)

—•— HCO3(mg/L)

 $- \times - Ca + Mg (mg/L) - \blacksquare - Na + K (mg/L)$

A total of seven springs were sampled off-site. During the 2-yr sampling period six springs were observed to be continuously flowing, and one was observed to be ephemeral or flowing seasonally. Analysis of water from four springs (Basalt, Los Alamos, Pine and GC-10.8) showed NO₂-NO₃ ranging from 0.2 to 3.1 mg/L. Water from two springs (Basalt and Sacred) contained U at 0.466 and 0.854 μ g/L. Results for five springs (Basalt, Los Alamos, LA 5.19, Pine and GC-10.8) showed dissolved gross β ranging from 3.39 to 69.9 pCi/L.

Several spring-temperature anomalies were noted during the sampling period. Spring temperature is a distinguishing factor in determining the probable depth of ground-water occurrence. Considering the absence of thermal anomalies beneath the Pajarito Plateau, warmer spring-water temperatures likely indicate a deep-aquifer origin, and cooler spring-water temperatures likely indicate a shallower source. Deep-aquifer temperature data (Appendix A) show values between 18.8 ° C at TW-8 and 21.2 ° C at TW-3. Therefore, the 16 - 21 ° C range of White Rock Canyon (west side) springs suggests that several may be deep-aquifer discharge points. Figure 3 shows the relationship between temperature and elevation for these springs. Note that Springs 4 and 6 have significantly lower temperatures (15.4 ° C and 15.9 ° C) than other White Rock Canyon springs. It is suggested that anomalies at Springs 4 and 6 may be due to dispersion/infiltration of surface water downstream from Springs 4A and 4AA in Pajarito Canyon and Ancho Spring in Ancho Canyon respectively. That is, surface-waters located above Springs 4 and 6 may be losing water into the subsurface and re-issuing at a lower elevation at Springs 4 and 6. Another suggestion may be that these waters are traveling through slump blocks which may be thermally cooler than natural bedrock. Temperature of Basalt Spring water was field measured at 10.0° C on May 3, 1995, and does not correlate with that of intermediate ground-water temperatures at TW-1A, which has a temperature of approximately 16.3 °C (measured by DOE OB on June 6, 1995). Low temperature at Basalt Spring may indicate nearby (< 0.25 km) recharge, perhaps by infiltration of cooler upstream surface water. Mixing of nearby upstream surface water with intermediate ground water may be occurring. Los Alamos Spring, which is located approximately 0.2 mi east of Basalt Spring issues from the south side of Los Alamos Canyon at a position approximately 40 ft above the active channel. Hydrochemical data (Appendix A) and general observations suggest that this spring may represent unaltered-intermediate ground water.

Based on historical data and general observations, we suggest that the source of ground water within canyon alluvium between the DP/Los Alamos Canyon confluence and the vicinity of LAO-5 may be DP Spring and intermittent surface-water flow in DP Canyon. Field observations show that ground water issuing from DP Spring infiltrates rapidly and may enter Los Alamos Canyon through a saturated zone or underflow within the alluvium of DP Canyon. This possible ground-water zone or conduit may be entirely or intermittently connected to saturated alluvium in Los Alamos Canyon at LAO-2. Hence, ground water within the Los Alamos Canyon alluvium may be subdivided into two distinct ground-water occurrences: one located at some unknown distance upgradient of the DP and Los Alamos Canyon confluence and one located between the mouth of DP Canyon and the vicinity of LAO-4.5. LANL's conceptual model for ground-water within Los Alamos Canyon alluvium and any deeper intermediate zones will need to be re-evaluated if this interpretation is correct.

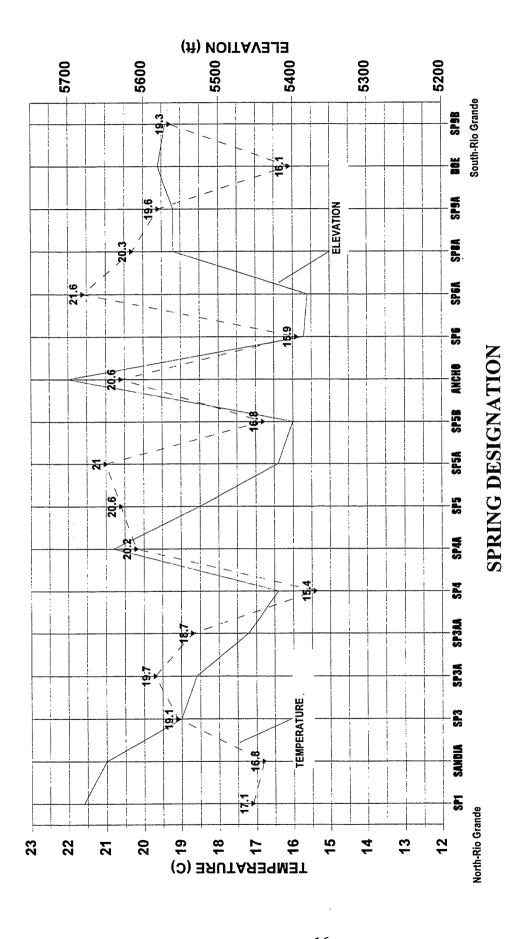


Figure 3. Plot illustrating the relationship between ground-water temperature and elevation at several springs along White Rock Canyon during 1994 and 1995.

ELEVATION (FEET)

* - TEMPERATURE (C) ---

SPECIAL STUDIES

FLOW MEASUREMENTS

Flow measurements were conducted at several spring sources and downstream from on-site springs in order to determine the amount of water they contributed to the stream. Mean-flow amounts and measurement dates are given on Plates 1A and 1B. Average values were calculated using 7-to-12 replicate measurements. As flow measurements were made at some distance below the springs, they may not adequately represent spring discharge. More specifically, the values may be low, due to losses associated with infiltration, or high, due to contributions by interflow or runoff. Since measurements were made during extremely dry conditions, the former is most likely and data may represent minimum spring discharge (Dale and Yanicak, 1996).

PURGE TESTS

In 1995 DOE OB requested that LANL sample several deep-aquifer test wells (TW-3, 4 and 8) for analysis of low-level tritium during well-purging to investigate possible borehole leakage and/or natural recharge of tritiated water. Initially, it was the DOE OB's intention to split samples with LANL for analysis of low-level tritium, but by year's end the DOE OB was unsuccessful in contracting with a laboratory with the appropriate analytical capabilities. Although we did collect split samples, we were only able to perform field measurements and analyze for a limited suite of chemical constituents at the referenced test wells. Analytical results (Appendix A) are inconclusive due to the lack of trends or obvious anomalies.

CONCLUSIONS AND RECOMMENDATIONS

Analytical results obtained from ground-water sampling during 1994 and 1995 indicate that anthropogenic constituents are present, in varying concentrations, within each saturated zone in the LANL area. The largest and most diverse concentrations of anthropogenic constituents in ground water are found within canyon alluvium.

LANL's deep-aquifer monitoring wells were installed between 1949 and 1960. Most are not grouted and have screened intervals ranging from approximately 10 to 450 ft. Hence, as noted by Stone and others (1993), LANL's current monitoring system is inadequate. It is suggested that LANL characterize, and ultimately develop an adequate ground-water monitoring network for each of these saturated zones.

Several on-site springs were identified and characterized during 1994 and 1995. Field observations and flow measurements at several of these on-site springs indicate that perennial flow may exist. On-site springs which emanate from the Bandelier Formation (Homestead, Starmer's, Bulldog, Burning Ground, Martin and TA-18) should be sampled or monitored bi-annually for several years in order to obtain baseline water-quality data. Additionally, these springs may possibly be recharging perched ground-water within canyon alluvium and possibly deeper zones formerly thought to be dry. It is recommended that LANL determine if these suspect segregated canyon alluvium perched zones (e.g., Pajarito Canyon west of TA-18 to Homestead Spring) indeed exist. As mentioned previously, DOE OB data suggest that ground water within Los Alamos Canyon alluvium may be subdivided into individual zones of saturation; therefore, these systems need to be delineated.

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REFERENCES

Baldwin, Brewster, 1956, The Santa Fe Group of north-central New Mexico: New Mexico Geological Society, Guidebook 7th field conference, p. 115-121, figs. 1-2.

Broxton, David E., and Reneau, Steven L., 1995, Stratigraphic Nomenclature of the Bandelier Tuff for the Environmental Restoration Project at Los Alamos National Laboratory: Los Alamos National Laboratory, Report LA-13010-MS, 21 p.

Dale, M.R., and Yanicak, S., 1996, Characteristics of springs in the western Pajarito Plateau, Los Alamos National Laboratory, New Mexico: New Mexico Geological Society, Guidebook 47th field conference, in press.

Galusha, Ted, and Blick, C., 1971, Stratigraphy of the Santa Fe Group, New Mexico: American Museum of Natural History, Bull., v. 144, no. 1, 127 p.

Griggs, R. L., 1964, Geology and ground-water resources of the Los Alamos area, New Mexico: U.S. Geological Survey, Water-Supply Paper 1753, 107 p.

Purtymun, W. D., 1984, Hydrologic characteristics of the main aquifer in the Los Alamos area: Development of ground water supplies: Los Alamos National Laboratory, Report LA-9967-MS, 44 p.

Purtymum, W.D.,1995, Geologic and hydrologic records of observation wells, test holes, test wells, supply wells, springs, and surface water stations in the Los Alamos area: Los Alamos National Laboratory, Report LA-12883-MS, 339 p.

Rogers, M. A., 1995, Geologic map of the Los Alamos National Laboratory Reservation, State of New Mexico Environment Department, scale 1 inch = 400 feet.

Smith, H. T. U., 1938, Tertiary geology of the Abiquiu quadrangle, New Mexico: Journal of Geology, v. 46, no. 7, p. 933-965

Spiegel, Zane, and Baldwin, Brewster, 1963, Geology and water resources of the Santa Fe area, New Mexico: U.S. Geological Survey, Water-Supply Paper 1525, 258 p.

Stone, W.J., 1995, Preliminary results of modeling the shallow aquifer, Mortandad Canyon, Los Alamos National Laboratory, New Mexico: New Mexico Environment Department, Report NMED/DOE/AIP-95/1, 15 p.

Stone, W.J., Davis, T. D., and Katzman, D., 1993, Initial assessment of the ground-water monitoring program at Los Alamos National Laboratory, New Mexico: New Mexico Environment Department, Report NMED/GWB-93/1, 25 p.

APPENDIX A

Analytical Results for General Chemistry

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STATION		င္မ	Mg	¥	æ	ច	u .	CO3	НСОЗ В	Phos^	SO4 a	NO2+NO3 as Nitrogen	Kjeld-N^^ 8	Ammonia as Nitrogen	TDS	TSS	Field	Field	Field Temp.
	Date	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L) ((mg/L) ((mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(S.U.)	(nS/cm)	ପ୍ର
INTERM, AQUIFER (VOLCANICS/SEDIMENTARY)																			
TW-1A	5/31/94 6/19/95	Z Z	A A	A Z	Ž Ž Ž Ž	NA 42	A A A	₹ X	₹ ¥	NA 0.94	₹ ₹	NA 4.7	₹ Z	Z Z	330	4 N 5	7.21 7.28	445** 477	14.9 16.3
TW-2A (TEST @ 09:48) (TEST @ 13:10) (TEST @ 15:00)	5/31/84 8/1/95 8/1/95 8/1/95	4 4 4 4 2 2 2 2 2 2	Z Z Z Z	<u> </u>	4 4 4 4 2 2 2 2	AN AN A 6.9	4 4 4 4 2 2 2 2	4 4 4 4 2 2 2 2	4 4 4 4 2 2 2 2	0.13 NA A 8 0.13	4 4 4 4 2 2 2 2	N N N L A A A A.	0 N N S	NA NA 0.05	NA NA 243	Z Z Z Z Z Z Z Z Z Z Z Z	8.21 7.5 7.5 7.1	362** 333 335 387	16.8 11 11.5 15.8
LA01(A)-1.1	F 11/1/95	2	~	Ŋ	13	~	<0.2	7	45	90.0	<10	0.4	<0.5	60.0	160	35	7.07	96	10.6
LADP-3	F 4/26/96	15	2	œ	22	35	<0.5	\$	63	₹ Y	14	NA	₹ Z	A A	140	800	6.90	235	10.9
PERCHED AQUIFER (ALLUVIUM)																			
Los Alamos Canyon																			·
LAO-0.7	11/30/94 6/21/95	₹₹	₹ ₹	Z Z	₹₹	₹ ₹	₹ X	₹ Z	₹ Z Z Z	₹ ₹	₹ ₹ Z Z	₹ ¥	A A	K K K K K K K K K K K K K K K K K K K K	NA 640	800 800	7.20	NA 227	8.6 12.4
1 99-22	6/21/95	Š	A	Š	Š	¥	Š Š	¥	Ą	Ą	¥	N A	ΑN	A A	200	5	68.9	217	11.2
LAO-2	6/9/94 F 6/21/95	4 K	Z Z	₹ ₹	₹ ₹	8 4 8	A A	₹ ₹	A A	NA 0.22	₹ X	Y Y Y Y	4 4 2 2	A A	NA 220	۲ ک ک	7.40** NA	550** 280	11.4** NA
LAO-B	6/14/94 F 1/17/95 T 1/17/96	X 8 8.6 4.	N 2.6 2.6	¥ ~ ~	NA 8.0 7.7	₹°₽¥	A 0.2 A X	₹ 2 ₹	340 NA NA	₹ ₹ ₹	A A A 0	A A A	4 4 4 2 2 2	V V V V V V V V V V V V V V V V V V V	A A A Z Z Z	4 4 4 Z Z Z	6.73 NA NA	A A A	N A N
LAO-0.3	6/14/94	¥	A A	Å V	¥ V	Ϋ́	Ϋ́	Š	A A	¥	AA	Ą	Ą	N A	¥	¥ Y	6.39**	Υ Y	11.1**
LAO-0.6	F 6/14/94	56	19	7	63	26	0.30	₹	78	Š Š	12	Ą	Ą	, e	290	23	6.74	Y Z	15.4
LAO-0.8	6/15/94	Ϋ́	A A	Ä	Š	∀	¥	₹	Ą	A A	Ϋ́	¥ X	A A	N A	¥	¥	7.01	Š Š	15.2
LAO-0.91	6/16/94	Š	NA	ž	¥ Y	¥ V	¥	A A	Š Š	A A	¥ Z	A A	A A	NA	Ž V	Ϋ́	6.61	Š	14.8
Pajarito Canyon																			
PCO-1	6/22/94	₹ Z	¥ Z	Ϋ́	A A	₹ Z	A A	¥ Y	Ą	<0.09	Š Š	0.3	0.3	<0.1	N A	ΑĀ	Υ V	¥.	¥.
PCO-2	6/22/94	Ϋ́	¥ V	Ϋ́	N A	Ϋ́	A A	¥	Å V	3.9	Ą V	9.0	3.6	0.1	Š	Ą	A A	A A	¥
PCO-3	8/12/94 F 6/20/95	A C	8 %	N δ	39 39	NA 95	N 9.0	₹₹	NA 240	₹ ₹	4 N 40 A	A A	A A	A A A A	430	A 4	7.41**	481** NA	17.7** NA

STATION Ca Mg	01685 F 8/1/95 17	Mortandad Canyon	MCO-5 6/23/94 NA NA	MCO-7 6/27/94 NA NA	Pueblo Canyon	APCO-1 6/20/34 NA NA 6/23/35 NA NA	Canada de Buey	CDBO-6 T 11/29/94 14 2.8 8/14/95 NA NA	CDBO-7 T 11/29/94 29 5.9	PERCHED AQUIFER (SHALLOW VOLCANICS)	ERID#03-2664 T 2/295 12 2.6	WATER SUPPLY	Offsite	G-1A 5/24/94 NA NA 7/14/95 NA NA	G-6 7/14/95 NA NA	Onsite	O-4 T 4/28/94 21 8.1	PM-2 7/14/96 NA NA	FM-3 (TEST @ 14:32) 42594 NA NA (TEST @ 13:29) 42594 NA NA (TEST @ 13:29) 42594 NA NA (TEST @ 13:24) 43894 NA NA
X	4		A A	A A		₹ ₹		e &	3		4			A A	Ą Ą		က	δ Z	X
Na (ma/c)			Ą	Ą		A A		26 NA	22		22			Υ Υ Υ Υ	Ą		20	Ą	4 4 4 4 2 2 2 2
ت ا	¥ ¥		A A	¥ Z		4 A 4 O		₹ Z	N A		Υ Y			A A	¥ Y		₹ Ž	Ā	4 4 4 4 2 2 2 2
H	¥		Ϋ́	Υ Y		₹ ₹		₹ Z	N A		Ϋ́			₹ Z	N A		₹ Z	A A	4 4 4 4 4 4 4 4
CO3	Ϋ́		Υ Υ	A A		₹ ₹ Z Z		₹ ₹ 2 ×	A A		Ϋ́			A A	Υ Y		Ą V	A A	4 4 4 4 2 2 2 2
HCO3	¥		Y Y	A A		A A		₹ Z	ΑĀ		Υ V			₹ Z	Ą Ą		¥ ¥	¥ ¥	4 4 4 4 2 2 2 2
Phos	0.57		<0.09	<0.09		NA 3.6		A A	A A		Ϋ́			Υ Υ Σ Σ	Ą		Ą	<0.05	4 4 4 4 2 2 2 2
\$04 (ma/l)	¥		Š Š	A A		₹₹		₹ ₹	¥ X		A A			₹ ₹ Z Z	Υ V		A A	A A	4 4 4 4 Z Z Z Z
as Nitrogen	0.2		33.0	63.4		NA 2.2		A A	Y V		Z Y			A A	Ą Z		Z Y	0.38	& & & & &
Kjeld-N^A	0.7		9.0	0.4		A A		A A	N A		Υ V			A A	Ϋ́		A A	1.8	4 4 4 4 2 2 2 2
Kjeld-N^^ as Nitrogen	<0.05		<0.1	<0.10		A A A		A A A	Z Y		N A			A A	, K		N A	<0.2	4 4 4 4 2 2 2 2
TDS	Ϋ́		Ϋ́	Υ Y		340		NA 220	Y Y		Š Š			4 4 2 2	X A		Š	A A	4 4 4 4 Z Z Z Z
TSS	Ϋ́		₹ Z	N V		12 N		NA 2200	Ą		Š Š			ς ς Z Z	₹ Y		Š	A A	4 4 4 4 2 2 2 2
Hd	¥		Š	A A		NA 6.90		A A	N A		7.43			8.40**	8.09		Ϋ́	7.37	7.66** 7.67** 7.63**
SC	N A		N A	¥ Z		NA 466		Z Z A A	Z Z		Ä			NA 189	163		Υ V	127	4 4 4 4 2 2 2 2
Temp.	9 ₹		Ϋ́	Ϋ́		14.5		₹ ₹	N A		11.9			28.2** 28.5	30.4		Š	25.1	23.8** 23.6** 23.1** 23.6**

STATION		S	Ž	×	S	ច	Li.	CO3	HCO3 F	Phos^	SO4 8	NO2+NO3 as Nitrogen	Kjeld-N^^ a	Ammonia as Nitrogen	TDS	155	Field	Field	Field Temp.
	Date	(mg/L)	(mg/L)	(mg/L)	~	~	3 1						(mg/L)	(mg/L)	(mg/L)	(mg/L)	(S.U.)	(nS/cm)	ପ୍ର
San Ildefonso Pueblo																			
LA-5	7/29/94	A A	¥	N A	A A	Š Š	¥	Š Š	A A	A A	A A	¥ ¥	A A	A A	Α̈́	¥ X	8.09	A A	19.7
OTOWI HOUSE	7129/94 6/24/95	A A	A A	A A	₹ ₹	₹ ₹	A A	A A	₹ ₹ Z Z	NA <0.05	₹ ₹	NA 0.5	NA <0.5	NA <0.05	₹ Z Z Z	₹ ₹	6.85	A A	17.3 17.5
OLD COMMUNITY	7/27/94	¥ X	A A	A A	ΑĀ	Ą	A A	Ā	Ą	Ą	Ϋ́	Ą	۲ ۲	۷ 2	₹	Š Ž	A A	A A	N A
PAJARITO PUMP 1	7127194 5124195	Z Z	₹ X	Z Z Z Z	Υ Υ Υ Υ Υ	Z Z Z Z	₹ ₹	Α Α Α	₹ ¥ Z Z	NA <0.05	₹ ₹	NA 0.2	NA <0.5	NA <0.05	A A	₹ ₹ 2 Z	NA 7.45	A A	NA 17.4
PAJARITO PUMP 2	5/24/95	¥ ¥	Ą	₹ Z	Ą	Ą Z	Ą	Ā	¥	<0.05	A	3.7	<0.5	<0.05	ΑĀ	Ą	7.27	Ą	17.1
WESTSIDE ARTESIAN	7/27/94	Š	Ϋ́	Ϋ́	Ā	A A	A A	Ą	Ϋ́	A A	Ą	A N	₹ Z	Ą V	¥	Ą	¥ V	A A	N A
HALLADAY HOUSE	7/29/94 5/26/95	₹ ₹	₹ ₹	₹ Z	ŏ ŏ Z Z	A A	₹ X	δ δ Σ Σ	¥ ₹	NA <0.05	∢ ≼ Z Z	0.6 0.6	NA 40.5	NA <0.05	₹ ₹	∢ ₹ Z Z	8.75 9.00	A A	20.2 16.8
NEW COMMUNITY	5/24/95	Ą	A A	A A	Ą V	Ą Z	Ą	Ą	Ą	<0.05	Ą V	1.5	<0.5	<0.05	¥	A A	8.04	360	14.6
SPRINGS																			
White Rock Canyon																			
АИСНО	F 415/94 T 4/5/94 9/28/94 1 F 9/12/95	12 A 2	2.9 N.9 3	0 5 5 v	0 5 8 0	ο N N S	0 N N 0 4 A A 4	4 4 4 4 4	68 NA NA 56	A A A 4.	4 N A 5 10 N A 5	N N N O. A A A 4.	N N N N O .7	NA NA 0.05	130 NA A 0	8 N N 8 320	7.6 NA 7.45 7.57	NA NA 133	18.5 NA 20.8 20.6
DOE	F 4/6/94 T 4/6/94 9/29/94 F 4/12/95	12 A 9 A	2.9 N 3.3 N 4 N 3.9	8 2 8 4 8		N N N N N N N N N N N N N N N N N N N	0.5 NA NA NA NA	X X X X X X X X X X X X X X X X X X X	68 NA NA NA NA	<u> </u>	N N N N N N N N N N N N N N N N N N N	X	4 4 4 4 4 2 2 2 2 2	X X X X X A A A A A	126 N A A D N A A	N N N N N N N N N N N N N N N N N N N	7.98 NA 7.55 7.90 7.41	N N N N 124 140	9.4* NA 13.8* 16.1
LA MESITA	7/28/94 5/24/95	4 4 2 2	Z Z	Ž Ž	Z Z	A A	₹ ¥	₹ ₹	₹ ₹	₹ ₹	A A	A A A A	A A	A A	A A	A A	7.83 8.08	411 NA	17.0 15.3
SANDIA	F 4/4/94 T 4/4/94 9/11/95	4 4 N A A A	3.2 3.8 NA	e e Z	16 NA A	2 S S	0.0 N N N N A	4 4 4 4 4 4	17 N N N N N N N N N N N N N N N N N N N	A A A	S A A	Z Z Z	4 4 4 2 2 2	4 4 4 2 2 2	132 NA A	8 N N A A	7.95 NA 7.53	NA NA 241	11.4* NA 16.8
ОТОМІ	10/15/94	NA A	Ä	Š	A A	¥.	Ą Z	A A	N A	N A	A A	Ą V	Ϋ́	A V	¥	Š Š	7.45	A A	14.1
SPRING 1	F 4/4/94 T 4/4/94	17	0.7	7 7	31 32	2 V V V V	0.6 NA	₹ ₹ Z Z	116 NA	₹ ₹ Z Z	æ₹	A A	Z Z Z Z	Z Z	142 NA	16 NA	7.41 NA	¥ ¥	12.2* NA

STATION			ő	2	×	2	7	ш	ő	HCO3	PhoeA	000	NO2+NO3	Kield NAA	Ammonia	J.	100	Field	Field	Field
□		Date	(mg/L)	(mg/L)	31	~	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)		(mg/L)		(mg/L)	(S.U.)	(uS/cm)	
SPRING 1 (cont.)	r r	3/30/95	16	4.5 1.5	7 7	30	\$ \$2 \$2	0.6	Š α	97	0.14	11	0.19	0.9 <0.5	<0.05 <0.05	210 130	4 20 30	7.82 7.84	205	11.6* 17.1
SPRING 2	п ⊢ п п 4 4 % 0	4/4/94 4/4/94 3/30/95 6/6/96	22 4 4 4 7	22.13	0000	55 57 37 40	လ A လ လ	1.0 N.8 0.8 0.5	ZZZZ+	192 NA 112	NA NA 0.52 0.09	o 72 o	NA NA 0.08 0.2	NA NA 0.5 0.5	NA NA 0.06 <0.05	244 NA 340 140	5 NA 1100 2	7.89 NA 8.35 8.18	NA 244 256	14.0* NA 9.4* 13.6*
SPRING 3	п н г г г	4/4/94 4/4/94 9/27/94 4/10/95	24 23 24 8 7 8	2.2 2.2 A A	ი ი ი ი ი <mark>V</mark>	16 17 13 13	2	0.5 NA NA NA NA	N N N N N N N N N N N N N N N N N N N	101 102 91 NA	X	8. 7. 8 A A A	8 8 8 8 8 8 8 8 8 8	4 4 4 4 4 2 2 2 2 2	4 4 4 4 4 2 2 2 2 2	N 136 N 130 N 130	3 NA NA NA NA	7.92 NA 7.85 7.99 7.58	N N N N N N N N N N N N N N N N N N N	17.0* NA 19.6 19.1 20.0
SPRING 3A	FFFF 49449	4/4/94 9/27/94 4/10/95 4/1/95	7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	7:000X	N w w w A	15 12 12 NA	N	0.5 NA 0.5 NA A	X	8 Z 8 Z Z 8 Z A Z Z	4 4 4 4 4 2 2 2 2 2	6 7 6 N A N A A	X	4 4 4 4 4 2 2 2 2 2	4 4 4 4 4 2 2 2 2 2	130 A A A	8	NA 7.75 7.82 NA 3.54	N N N N N N N N N N N N N N N N N N N	NA 19.1 19.7 NA 20.0
SPRING 3AA	T. 99	5/17/95	18 N A	۲ A	e ₹	4 X	%	<0.5 NA	N <5	84 A	₹ Z Z Z	ς N A	4 4 2 2	A A	4 4 2 2	110 NA	17 NA	7.68	168	18.7 19.5
SPRING 3B	ਲੌ	9/27/94	A A	Υ Y	¥ ¥	A A	A A	A A	Š Š	N A	A	Υ Y	A	A A	N A	¥.	Š Š	7.56**	¥ N	24**
SPRING 4	∓ 4 99	4/20/95 9/11/95	2 Z A	4	e δ	= ₹	~ [∀]	<0.5 NA	N 45 A 45	88 A A	A A	S A	Z Z Z Z	A A A A	A A Z Z	140 NA	7 A A	7.50	212 216	15.4 16.6
SPRING 4A	т ⊢ т 4 4 9 9	4/5/34 4/5/34 9/28/34 3/24/95	20 NA 19	4.4.N.4. 4.5. A.3.	2.2 2.8 2.8	12 12 NA 9.7	5 N N S	0.5 NA 0.5	X X X X X X X X X X X X X X X X X X X	91.2 NA 90	NA NA 0.05	9 X X V	NA NA 1.34	N N N N 0.5	NA NA 0.05	148 N A A A 55 135	2 N N 0 10 N N 0	7.88 NA 6.65 7.86	N N N N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20.8* NA 20.1 20.2
SPRING 4AA	ñ	3/24/95	Ą V	¥ Y	Š	Ϋ́	Ą	A A	Ą Z	Š	A A	Š Š	¥ V	Š V	, V	Ϋ́	₹	7.78	185	18.5
SPRING 4B	т <u>4</u> 9	4/20/95 9/11/95	24 NA	ς <mark>X</mark>	ε Ž	± ₹	^	<0.5 NA	2 × S A A	98 A	₹ Z	6 X	Υ Υ Ζ Ζ	Y Y Z Z	A A A A	160 NA	7. A A	7.53 7.52	230 > 232	15.5 16.9
SPRING 4C	õ	9/11/95	Ą	A A	¥ Y	Ϋ́	Ą	Ą	Š	Y Y	N A	N A	A A	N A	NA	¥	A A	7.52	213	17.1
SPRING 5	ить 9449	9/28/94 4/10/95 4/10/95 9/12/95	19 17 NA	6. 4 N 8. 4 N	4 0 0 ₹	10 e A	5.5 N A 5 N A	N 0 0 N N N N N N N N N N N N N N N N N	Z V Z Z Z V Z Z	2 8 8 8 8 8 8 8	Z Z Z Z Z Z Z Z	7.7 8 N 8 A	& & & & Z Z Z Z	A A A A	Z Z Z Z	N N N N N N N N N N N N N N N N N N N	A C A A	7.80 7.85 NA 7.42	NA 182 NA 208	20.0 20.6 NA 20.9
SPRING 5A	- - - -	9/28/94	NA 23	ν S S	Ϋ́ε	NA 18	S S	N 0.4	₹ ^۲	89 89	NA 0.05	NA 410	NA 0.6	NA <0.5	NA <0.05	NA 180	NA (F 220	Flowing, n 7.44	(Flowing, no field parameters) 7.44 225 21.0	ameters) 21.0

													NO2+NO3		Ammonia			Field	Field	Field
STATION			င္မ	Mg	×	E R	ರ	ш	CO3 H	нсоз г	Phos^	SO4	as Nitrogen	Kjeld-N^^	as Nitrogen	TDS	TSS	표	သင	Temp.
		Date ((mg/L)		i) (1/6w)	_	i) (7/8w)	i) (T/Bur)	, (1),Bu	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(<u>m</u> g/L)	(mg/L)	(mg/L)	(mg/L)	(S.U.)	(mS/cm)	ପ୍ର
SPRING 5B		9/28/94	NA 17	Σ 4 ξ	N V V V	AN 4	A 4	NA 0.5	₹ -	A F	NA <0.05	A V V	2.1 2.1	NA 40.5	NA <0.05	170) A	Flowing, n 7.60	(Flowing, no field parameters) 7.60 188 16.8	meters) 16.8
SPRING 6	<u>.</u>	9/12/95	17	4	8	12	e	6.4	⊽	80	0.08	<10	0.1	<0.5	<0.05	170	9	7.10	173	15.9
SPRING 6A	ь Б	9/12/95	6	ဗ	7	10	2	0.4	7	52	<0.05	<10	0.4	<0.5	<0.05	140	9	7.84	121	21.6
SPRING 8A	ш н ш	4/5/94 4/5/94 9/29/94 4/11/95	11 0 8 8 N NA 0 NA	3.3.1 NA 8.4 NA 8.4	8 2 A 2 2	N 9 A N 12 2 A N A N A N A N A N A N A N A N A N	N S S S S S S S S S S S S S S S S S S S	0.4 NA NA NA NA NA	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	68 N N N N N N N N N N N N N N N N N N N	4 4 4 4 4 2 2 2 2 2	A Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	4 4 4 4 4 2 2 2 2 2	4 4 4 4 4 2 2 2 2 2	4 4 4 4 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	132 NA 140 NA	2 N N N N N N N N N N N N N N N N N N N	7.96 NA 6.60 8.28 6.47	N N N N 119	10.8* NA 16.7* 11.5* 20.3*
SPRING 9	-: - -	9/29/94	¥ ¥	₹ ₹	Z Z	A A	A A	A A	A A	A A	₹ Z	A A	A A	A A	A Z A	Υ Υ Υ Υ	A A	7.44	NA 144	20.1
SPRING 9A	ш	4/6/94	7	3.1	2			0.5	¥	73	Ϋ́	Š,	Ą	N A	N A	154	8	7.99	Ā	13.5*
		4/6/94	12	3.3	۲ × ۶		¥ S	Y X	Y Y	¥ ₹	Y Z	A A	Z Z	A Z	A Z	Υ Υ Υ	A X	AN 7.7	Ψ Ψ Z Z	NA 19.8
	u	9/29/94	₹ ⊊	ξ m	ہ کِ	- - - -		0.5 50.5	\ \ \ \ \ \	6 4	Ç ≼ Z	Ş \ \ \ \	₹ ¥	₹ Ž	Ž	120	£ 5	7.49	124	19.6
		9/13/95	¥.	× ¥	¥			¥	Y Y	Y Y	¥ X	¥.	A A	Ϋ́	Š Š	Ϋ́	¥	7.04	127	20.2
SPRING 9B	ш -	4/12/95	တတ	ოო	2 -	_ ნ	, S A S A	<0.5 NA	\$ \$ A	9 Y	₹ ₹ Z Z	ი X Ā	δ δ Σ Σ	A A	Z Z Z Z	120 NA	7 4 4 V 4	7.84 NA	122 NA	19.3 NA
SPRING 9D	-	9/13/95	Y Y	∀	¥ ¥	A A	Ą X	Ą	¥	¥ ¥	Υ V	¥ Z	A A	N A	N A	A A	A A	5.86	221	19.7
Los Alamos <u>Canyon</u>																				
BASALT	ů.	7128194 513195 6125195	Z - Z Z - Z	Z ω Z	Z ~ Z	26 NA NA	5 8 5	0.5 NA NA	8 4 8 8 4 8	X 8 X A 0 A	A 7. A	N 20 A	N 1.3 N A	N + N N + N	X + X 4 + A	NA 170 150	29 4	7.60 7.19 7.17	450 260 NA	13.3* 10.0 13.3
LOS ALAMOS	r.	6/3/95 6/6/95 11/15/95	2 N N N	α N N A V	4	4 X X	N N 20	0.0 A A A	2 4 4 8 8 4	0 X X 6 A A	<0.05 NA NA	6 X X 6 A A	e Z Z L A A	0.5 NA NA	<0.05 NA NA	190 NA	% - ₹	7.80 7.69 7.13	343 340 343	11.0 11.3 10.2
LA-11.2	u.	8/23/95 3/10/95	A 8.9	NA 2.5	N S	4 O	φ	NA 0.3	NA ~10	N 58	A A A	10 A	∢ ∢ Z Z	A A	A A	120	× 55 ×	7.31 8.02	120 133	11.5
LA-5.19	II.	12/16/94 12/20/94 7/14/95	A S E	Δ Z 4	ς N A δ v	N N A S	36 A A	N N N N N N N N N N N N N N N N N N N	₹ ¥ ₹	NA NA 56	NA NA 0.06	A & C	NA NA 0.1	N N N S O S O S O S O S O S O S O S O S	NA NA 0.05	A A A 180	N N N N N N N N N N N N N N N N N N N	(Flowing, r 8.02 6.80	(Flowing, no field parameters) 8.02 NA 9.8 6.80 253 9.9	ameters) 9.8 9.9

STATION		S	ğ Z	¥	s S	ច	ш	E03	HCO3 F	Phos^	804	NO2+NO3 as Nitrogen	Kjeld-N^^ a	Ammonia as Nitrogen	TDS	TSS	Field pH	Field	Field Temp.
의	Date	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L) ((mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(S.U.)	(uS/cm)	ସ
Pajarito Canyon & Tributaries																		•	
UPPER STARMER'S	4/28/96 F 5/19/95 6/14/95 6/22/96 7/7/95 10/20/95	X	4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Z	Z & Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	0.08 N N N N N N N N N N N N N N N N N N N	A - A A A A A A	0 N N N N N N N N N N N N N N N N N N N	0 X X X X X X X X X X X X X X X X X X X	0, 0 X X X X X X X X X X X X X X X X X X	145 N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	6.69 6.77 6.98 6.86 NA NA	167 97 92 101 97 NA NA	8.1 8.5 8.9 9.1 10.6 (dry)
CHARLIE'S	F 7/22/94 T 2/24/95 F 4/28/95 6/14/95 8/22/95 7/7/95 10/20/95 F 11/9/95	0 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8	4 % % & X X X %	0 4 2 4 4 4 8 8 8 8 9 9 9	∞	0.1 N N N N N N N N N N N N N N N N N N N	2	252 N N N N N N N N N N N N N N N N N N N	0.05 A A A A A A A A 0.05	0 27 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	X X X X X X X Q A A A A A A A 4.	Z Z Z Z Z Z Z Z Z Q Q	X X X X X X X X X X X X X X X X X X X	132 230 143 NA NA NA 120	0 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.10 7.43 7.03 6.78 6.85 6.63 6.07	N N N N N N N N N N N N N N N N N N N	0 8 8 8 8 8 8 8 0 0 4 7 8 8 8
PERKINS STATE OF THE STATE OF T	F 4/28/96 6/19/95 6/14/95 6/22/96 7/7/96 10/20/95	0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	0 4 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	- Z 0 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	A	N	X 4 4 X X X X X X X X X X X X X X X X X	0.00 0.09 0.09 0.09 0.09 0.09	N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	2.0 2.0 2.5 2.5 2.5 3.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5	0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05	148 80 80 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	X	6.78 6.61 6.24 6.62 6.48 NA NA	169 103 NA A A A A A A A A A A A A A A A A A A	8.5 9.1 9.1 9.0 9.0 (dry)
GARVEY	6/24/95 6/22/95 10/20/96 11/9/96	X X X X	4 4 4 4 2 2 2 2	\$ \$ \$ \$ 2 2 2 2	4 4 4 4 2 2 2 2	4 4 4 4 2 2 2 2	4 4 4 4 2 2 2 2	4 4 4 4 2 2 2 2	4 4 4 4 2 2 2 2	0.12 NA NA NA	4 4 4 4 2 2 2 2	0 Z Z Z 2 Z Z Z 4 Z Z Z	0.00 N N N N A A	40.05 NA NA NA	<u> </u>	4 4 4 4 2 2 2 2	6.57 NA NA NA	9 Z Z Z 4 A A A	9.6 (dry) (dry)
JOSIE	4/28/95 6/19/95 6/14/95 6/14/95 6/22/96 7/7/95 10/20/95	Z 0 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	Z ~ Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	Z N Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	Z	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	X	4 × 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	4 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	A A A A A A A A A A A A A A A A A A A	X X X X X X X X X X X X X X X X X X X	. Z Z 0 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	4 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Z % Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	(Flowing, no field parameters 6.62 83 8.7 6.36 82 8.8 6.59 82 8.8 6.39 9.1 8.9 (Flowing, no field parameters (Flowing, no fiel	no field parameters, 83 8.7 82 8.7 82 8.8 8.8 8.5 9.1 9.1 no field parameters, no field parameters,	parameters) 8.7 8.7 8.8 9.1 8.9 parameters)
STARMER'S	F 7122/94 T 2/24/95 F 4/28/96 6/14/95	N N 1 1 3 4	3.2 4 N 8 A 8 A	4 4 6 8 8	9 K + 4 8 A A 4	8 31 8 N A N A N A N A N A N A N A N A N A N	0.1 NA A A NA A	7 7 2 2 Z 7 4 4 4	N N N N N N N N N N N N N N N N N N N	0.09 NA NA NA NA	N N N N N N N N N N N N N N N N N N N	0.20 NA NA NA NA	0.30 N N N N N N N N N N N N N N N N N N N	0.10 N N N N N N N N N N N N N N N N N N N	142 250 144 NA	Z 0 Z Z Z	7.27 7.79 6.85 NA 6.42	NA NA 171 96	0. 8. 8. 8. 8. 4. 0. 8. 8. 0.

												NO2+NO3		Ammonia			Field	Field	Field
STATION		Ca	Mg	¥	Na	ច	u.		HC03	Phos	804	as Nitrogen	Kjeld-N^^ a	as Nitrogen	TDS	TSS	Ħ	သင	Temp.
의	Date	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(S.U.)	(nS/cm)	ପ୍ର
STARMER'S (cont.)	777/95 10/20/95 F 11/9/95	A N C	N N N N N N	8	ŽŽω	A A V	NA NA 0.2	₹ ₹ ⊽	A A +	NA NA <0.05	A N A	N N O O S	NA NA 0.5	NA NA <0.05	4 % 0 4 % 0	33 K X X	6.80 6.28 6.93	101 117 120	8.8 8.3 8.3
BRYAN	F 6/19/95 6/22/95 7/7/95 10/20/95	0 X X X X	6 Z Z Z Z	2 X X X X X X X X X X X X X X X X X X X	0 4 4 4 4 4 4 4 4	9	0 N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	N N N N S	4 4 4 4 4 2 2 2 2 2	N N N N N N N N N N N N N	A A A A A	4 4 4 4 4 2 2 2 2 2	4 4 4 4 4 2 2 2 2 2	0 4 8 8 8 8 8 8 8 8	~ * * * * * * *	7.06 6.78 6.85 6.71 7.14	118 114 120 137	6.0 9.5 1.8 0.8
HOMESTEAD	F 8/9/94 T 2/24/95 F 4/28/95 6/19/95 F 6/22/95 T/7/95 10/20/95 F 11/9/95	121 Z 7 Z 8 8 Z 8 8 Z 8 Z 8 Z 8 Z 8 Z 8 Z 8	9.4 4 N N N N N N N N N N N N N N N N N N	04080880	12 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	71 4 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	00.2 N N 0.2 N N N 0.2 0.2 0.2 0.2	2	34 N N N N N N N N N N N N N N N N N N N	NA NA NA NA NA NA NA NA NA	o 4 8 8 5 8 8 5	N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	0.05 0.05 0.05 0.05	NA 133 NA NA 99 99	X	7.06 6.75 6.61 6.45 6.20 6.45 6.88	NA NA 158 82 79 90 97	7.55 7.77 7.77 8.00 8.66 8.66 8.66
KIELING XIELING	F 6/19/95 777/95 10/20/95 11/9/95	- Z Z Z Z	ω X X X	ω X X X Α X X	0 X X X 0 X 4 X	∞₹₹₹	0.5 N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	4 8 8 8 8 8 8	Z Z Z Z Z Z Z Z	N N N N	A A A A	Z Z Z Z Z Z Z Z	4 4 4 4 2 2 2 2	2	54 N A N O	7.26 6.84 6.60 (Flowing, n	145 9.6 168 10.4 189 8.3 9, no field parameters)	9.6 10.4 8.3 nmeters)
BULLDOG	F 8/9/94 T 2/24/95 F 4/28/95 6/19/95 7/7/95 10/20/95 F 11/9/95	4 8 6 8 8 8 8 8	5.0 N N N 0.0 N N N 0.0	4 m m Z Z Z m	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	12 N N N N N N N N N N N N N N N N N N N	0 0 N N N N 0 0 0 0 0 0 0 0 0 0 0 0 0 0		66 58 NA NA 72	N N N N N N N N N N N N N N N N N N N	9 8 8 8 8 8 5 F	A A A A A A L	A A A A A A A A S.	N N N N N N N N N N N N N N N N N N N	200 200 159 NA NA 170	Z	6.87 7.39 7.42 7.09 7.26 7.21 7.35	NA NA 231 226 217 229 206	11.9 9.5 9.4 9.4 9.8 10.0
ANDERSON	12/14/96		¥ \$	₹ Ş	₹ \$	₹ Ş	₹ ₹	¥ ž	Υ S	₹ 2	₹ Z	₹ Ş	Y Y	₹ <u>₹</u>	Y S	Y S	6.42	150	10.8
TW-1.72	12/14/95	Z Z	ž ž	₹ ₹	<u> </u>	₹ ₹	₹ ₹	<u> </u>	{	₹ ₹	₹ ₹	Z Z	₹ ₹	<u> </u>	S S	¥ ¥	8.02	161	
SM-30	2/2/95 6/29/95	X X A A	Z Z Z Z	Z Z Z Z	Z Z	₹ ¥	A A	A X A	A A	₹ ₹ Z Z	₹ ₹	A A	A A	A A	A A	¥ ¥ X ¥	8.58 (Flowing, n	NA 3.6* no field parameters)	3.6* ameters)
SM-30A	¹ F 6/29/95	=	က	ო	31	26	<0.2	₹	46	0.10	<10	<0.1	1.0	<0.05	210	360	6.40	277	10.8*
TA-18	F 3/13/95 F 3/13/95 11/17/95	7 1 1 1 1 A A	3.5 NA	e e Z	13 NA 13	0 4 8 6	0.2 0.2 NA	7	58 52 NA	4 4 4 Z Z Z	9 1 4 7 4	A A A	4 4 4 2 2 2	A A A	126 NA NA	5 4 A	6.84 6.54 6.20	NA 167 150	12.1* 4.6* 8.4*
THREEMILE (A)	F 6/23/96	10	က	ო	13	17	<0.2	7	44	0.20	<10	<0.1	<0.5	<0.05	250	52	6.55	141	7.9*

											_	NO2+NO3		Ammonia			Field	Field	Field
STATION ID	Date	Ca (mg/L)	· Mg (mg/L)	X (mg/L)	Na (mg/L)	CI (mg/L)	F (mg/L)	CO3 H	HCO3 P	Phos^ (mg/L) (SO4 a	as Nitrogen <u>(mg/L)</u>	Kjeld-N^^ as Nitrogen (mg/L) (mg/ <u>L)</u>		TDS (mg/L) (TSS (mg/L)	PH (S.U.)	SC (uS/cm)	Temp.
THREEMILE (A) (cont.)	8/18/95	Z Z Q Q	Z Z	Z Z A A	A A	₹ ₹	₹ ₹	A A	A A	₹ ¥	A A	A A	₹ ₹ Z Z	A A	₹ ₹	A A	A A	¥	(Dry) (Dry)
THREEMILE (B)	F 6/23/95 8/18/95 11/17/86	6 X X 6 X 4	e Z Z	ωKK	~	e Z Z	0.2 N A A	2	85 NA NA	0.12 NA NA	N N 0	0 N N N N N N N N N N N N N N N N N N N	^0.5 N A NA	<0.05 NA NA	290 NA NA	N N N N N N N N N N N N N N N N N N N	6.37 6.44 6.69	104 147 151	9.6* 10.2* 6.9*
Tensite Canyon	F 10/18/95	19.9	88	2.9	33.8	15.1	0.36		68	0.11	1.7	0.027	0.32	0.12	193	95	6.60	227	*9.8
Water Canyon & Tributaries			ì	ì				•	:									ه م	
BURNING GROUND	F 8/12/94 F 3/17/95 3/22/96 6/12/96 8/31/96	2 4 2 2 2 2 4 4 4 4	4 4 Z Z Z 9 8 4 4 4	n ω α α α α α α α	25 N N N N N N N N N N N N N N N N N N N	N N N 19 N A N A N A N A	0.2 0.5 NA NA NA	2	92 N N N N N N N N N N N N N N N N N N N	A A A A A	N N N 0 10	4 4 4 4 4 2 2 2 2 2	4 4 4 4 4 2 2 2 2 2	4 4 4 4 4 2 2 2 2 2	N N N N N N N N N N N N N N N N N N N	4 4 4 4 4 2 2 2 2 2	6.76 7.04 7.12 7.76 7.23	NA 223 224 181 216	10.3 10.3 10.8 10.4
SWSC (duplicate)	F 8/12/94 F 3/17/96 F 3/17/95 3/22/96 6/12/98	18 14 17 18 18 18 18 18	2. 4. 2. X 8. 4. 5. X 4. 4. 4. 4. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	ო ო ო \ \ \	0 7 7 8 7 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	15 N N N 19 N A A A A A	0.2 0.5 N N N N N N N N N N N N N N N N N N N	6 & & & & & & & & & & & & & & & & & & &	08 N N N N N N N N N N N N N N N N N N N	4 4 4 4 4 4 2 2 2 2 2 2	0 to 8 do 8	Z Z Z Z Z Z Z	X	Z Z Z Z Z Z Z	X	4 4 4 4 4 4 2 4 4 4 4 4 4	6.78 7.06 NA 7.13 7.07 7.13	234 228 206 213	10.4 NA 9.5 9.6 9.9
MARTIN	F 6/12/96 7/21/95	24 NA	φŽ	ε A	22 NA	19 NA	<0.5 NA	\$ \$ \$ \$	104 NA	₹ ₹	20 NA	A A A	Υ Υ Υ Υ	₹ Z Z Z	200 NA	6 A	6.99 7.04	315 323	10.0
PETER	8/12/94 5/12/95 F 6/2/95 8/31/95	N N N N N N N N N N N N N N N N N N N	S S 4 S S S 4 S	ZZ nZ	N N N N N N N N N N N N N N N N N N N	A A 8 A	N	Z Z Z Z Z Z Z Z	X	N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	NA NA 0.05 NA	A A A A A	NAN AN	(Flowing, no field parameters) (Flowing, no field parameters) 6.72 129 9.9*7.7.07 259 12.7*	field para field para 129 259	meters) meters) 9.9* 12.7*
ноггом	T 12/9/94 F 3/17/95	8.2	3.0	4 0	8 9	တ ဆ	0.4	£ &	45 55	₹ ₹	<25 39	ĕ ĕ Z Z	A A A	₹ Z Z Z	NA 172	A A	7.83 6.32	130 130	2.3*
FISH LADDER	F 6/2/95	4	Ψ-	٧	12	7	<0.5	\$	25	0.27	84	<0.1	1.9	<0.05	250	370	5.87	100	10.8*
VA-0.8	T 12/9/94	13	4.1	4	10	9	0.2	₹	42	60.0	<25	0.2	<0.5	<0.05	A A	¥ Y	7.14	A A	4 .8*
WC-6.25	F 8/4/95	17	ည	5	22	33	0.2	₹	29	0.07	<10	<0.1	<0.5	<0.05	170	\$	6.64	255	14.3*
Other Springs																		*	
SACRED	7/28/94 5/24/95	A Z	Z Z Z Z	₹ ₹	Υ Υ Υ Σ Σ	₹₹	₹ Z	₹ ₹ Z Z	₹ ₹	₹ Z	₹ Z Z Z	A A	A A	Y Y Z Z	ΖΖ ΖΖ	₹ Z	7.91 7.37	ξ. Y Y Y	22* 17*

													NO2+NO3		Ammonia			Field	Field	Field
STATION			ç	Mg	×	Ra Ba				НСОЗ	Phos^	804	as Nitrogen	5	as Nitrogen	TDS	TSS	Н	SC	Temp.
	الس	Date	(mg/L)) (7/Bw)		(mg/L) (i) (<u>'''')</u>			(mg/L)	(mg/L)		(<u>mg/L)</u>	(ma/r)	(mg/L)	(m8/L)	(S.U.)	(uS/cm)	ପ୍ର
GC-10.8	F										0.15	99	0.2	9.0	<0.05	151	<10	7.17	105	10.3
	. T	10/16/95	10	က	က	9			₹	48	60.0	<10	0.1	<0.5	<0.05	130	\$	99.9	107	10.2
PINE SPRING	1 F 12	127194		3.3				<0.2		4	0.15	<25	0.2	0.5	<0.05	Ϋ́	Ϋ́	6.81	65	3.3*
	F 10/16/95	116/95	4	4	4	7		<0.2	₹	61	0.15	=	<0.1	<0.5	<0.5	170	\$	2.97	136	12.1*
GC-0.36	1 F 12	127194	23	8.4	6		4	0.3		77	Ą	<50	Ą	N A	Ą	¥	ΑĀ	7.26	89	4.8*
	5	10/16/95	Š	Ϋ́	Ϋ́	Ϋ́	¥ Y	A A	Ā	¥	Ϋ́	Α̈́	A A	A A	A V	¥	¥	7.40	72	10.2*
WCG	ιō	5/24/94	Š Ž	Š	Ą	¥ V	N A	A A	N A	Ą	A A	¥ ¥	N A	A A	A A	Ā	A A	8.81**	A A	11.5**

^{1 -} sample not received at contract laboratory at 4 degrees Celsius

^{^ -} Total phosphate as phosphorus

^{^^ -} Total kjeldahl nitrogen

^{*.} Temperature may not represent true ground-water temperature due to low-flow conditions

^{**} LANL's ER or ES field data

^{*** -} Low temperature due to sampling through piping and filter apparatus

TDS - Total dissolved solids

TSS - Total suspended sollds

NA - Not analyzed or not available SC - Specific conductance

T: indicates that the sample was acidified prior to flitration or analysis, and represents total metals.

F: indicates that the sample was filtered through a 0.45 micron filter prior to acidification or analysis, and represents dissolved metals.

APPENDIX B

Analytical Results for Total and Dissolved Metals

Zn (mg/L)	0.56 NA	0.50 NA	A A	6.00	0.76	0.66	0.35	5. B.	A A	0.49	0.46	A A	3.1 NA NA		2.0 NA	0.24 NA	0.04	0.56
V (mg/L)	<0.01 NA	40.01 NA	A A	<0.01	<0.01	<0.01	60.1	60.01 0.01	NA A	<0.01	60.1	A A	-0.01 -0.1 NA NA		<0.01 NA	<0.01 NA	<0.01	<0.01
TI (17)6m)	<0.2 NA	<0.2 NA	A A	<0.2	<0.2	0.2 NA	NA S	<0.2 <0.2	Y.	<0.2	¥ :	A A	0.2 NA NA NA NA		<0.2 NA	<0.2 NA	<0.01	<0.01
Sr (mg/L)	0.26 NA	40.01 NA	A A	0.05	0.05	<0.01	<0.1	0.03	Ą	<0.01	60.1	Z Z	60.01 NA NA		<0.01 NA	<0.01 NA	0.04	0.12
Sn (mg/L)	<0.2 NA	<0.2 NA	A A	<0.2	<0.02	<0.2 <0.1	6 0.1	0.2 0.2	Ą.	<0.02	6.	g g Z Z	<0.02 <0.1 NA NA		<0.2 NA	40.2 NA	<0.02	<0.02
Si (mg/L)	A A	A A	X X A A	Ą	Ą	X X	ន	g g	Ą	¥	¥:	Y Y	N 25 N N A A A		X X	A A	36	59
Se (mg/L)	<0.005 NA	<0.005 NA	A A	<0.005	<0.005	<0.005	<0.005	<0.005	Ą	<0.005	<0.005	g g	<0.005 <0.005 NA NA		<0.005 NA	<0.005 NA	<0.005	<0.005
Sb (mg/L)	<0.06 NA	40.06 NA	A A	<0.06	90'0>	<0.06 NA	A S	40.06 40.06	Ą	<0.06	¥ :	K K Z Z	0.06 NA NA		<0.06 NA	<0.06 NA	<0.02	<0.02
Pb (mg/L)	0.068	0.046 NA	A A	0.057	0.006	0.29	0.026	0.011	<0.003	<0.05	0.011	0.006 <0.003	<0.05 0.027 0.008 <0.003		0.003	<0.003 NA	<0.003	0.018
Ni (1/6m)	<0.02 NA	<0.02 NA	A A	<0.02	<0.02	<0.02	60.4	<0.02 <0.02	NA	<0.02	60.1	Y Y	<0.02 0.11 NA NA		<0.02 NA	<0.02 NA	<0.02	<0.02
Мо (mg/L)	<0.01 NA	40.01 NA	A A	<0.01	<0.01	<0.01	0.001	6.0 0.0	Ą X	<0.01	0.001	Z Z A A	<0.01 <0.001 NA NA		<0.01 NA	<0.01 NA	<0.01	<0.01
Mn (mg/L)	0.02	0.10	N N A	0.03	<0.01	0.01	<0.05	40.05 40.03	Ą	90'0	90.0	X X X X	0.01 <0.05 NA NA		0.14	0.03	<0.01	0.36
(<u>man)</u>	A A	8 8 8 8	A A	X A	¥ ¥	Υ Υ Υ	¥ :	g g	X A	Ą	¥	g g	X		X X	A A	<0.01	<0.01
Hg (mg/L)	<0.0002 NA	<0.0002 NA	A A	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	A A	<0.0002	<0.0005	A A	<0.0002 <0.0005 NA NA		<0.0002 NA	<0.0002 NA	<0.0002	<0.0002
Fe (mg/L)	0.2	2.8	2.90	0.51	40.1	9.6	5. 5	6.5 6.4	NA A	5.6	£.	ς ς Σ Σ	0.0 N A A		1.0 60.1	47	9.0	2.7
Cu (mg/L)	<0.01 NA	40.01 NA	A A	0.01	<0.01	<0.01 <0.01	60.01	6.00 0.01	Ä	0.07	0.07	α α Σ Σ	0.01 NA NA		<0.01 NA	<0.01 NA	0.01	0.02
Co (mg/L)	<0.01 NA	c0.01	A A	<0.02	60.0	<0.01	<0.001	6.0 0.0 0.0	NA	<0.01	<0.001	K K	<0.01 <0.001 NA NA		<0.01 NA	<0.02 NA	<0.01	<0.01
Cr (mg/L)	<0.01 NA	40.01 NA	A A	<0.01	<0.01	<0.01 0.001	<0.001	0.03	ğ	<0.01	0.008	Ψ Ψ Σ Ψ	<0.01 0.003 NA NA		<0.01 NA	<0.01 NA	<0.01	0.01
(T/Bill)	<0.005 NA	<0.005 NA	A A	<0.005	<0.005	<0.005	<0.001	<0.005	ΑN	<0.005	<0.001	A A	<0.005 0.002 NA NA		<0.005 NA	<0.005 NA	<0.005	<0.005
Be (mg/L)	<0.001 NA	<0.001 NA	A A	<0.001	<0.001	<0.001	0.1	<0.00 <0.001	¥.	<0.001	c 0.1	Q Q	<0.001 <0.1 NA NA		<0.001 NA	<0.001 NA	<0.005	<0.006
Ва (mg/L)	40.1 NA	40.1 NA	N A A	<0.1	* 0.1	6. 6.	¢0.1	6 6.1	¥	60.1	60.1	A A	00.1 NA NA		<0.1 NA	<0.1 NA	6.1	40.1
В Ва (mg/L) (mg/L)	40.09 NA	<0.09 NA	A A	<0.09	*0.0	<0.01	40.1	6.0° 0.0° 10.0°	NA	0.04	6 0.1	A A	0.02 0.14 NA NA		0.19 NA	0.09 NA	60.1	0.03
As (mg/L)	<0.005 NA	<0.005 NA	A A	<0,005	>0.06	<0.06	0.001	40.06 40.06	A A	<0.06	<0.001	A A	<0.06 <0.001 NA NA		<0.005 NA	<0.005 NA	<0.01	<0.01
Ag Al As (mg/L) (mg/L) (mg/L)	<0.2 NA	<0.2 NA	A A	<0.2	<0.2	60.2	* 0.1	<0.2 <0.2	NA A	<0.2		Y Y	60.2 NA NA		<0.2 NA	<0.2 NA	1.2	0.1
Ag (mg/L)	<0.01 NA	40.01 NA	X X A A	<0.01	*0.0	<0.01	60.1	60.04 60.04	¥	<0.01	40.1	A A	40.01 40.1 NA		<0.01 NA	<0.01 NA	<0.01	<0.01
Date	T 5/31/94 F 6/19/95	6/31/94 8/1/95	T 7/18/95 T 7/18/95	1 T 6/20/94	1 T 10/21/94	9/8/94	9/8/94	F 11/21/94	11/9/95	9/8/94	9/8/94	6/30/95	918194 918194 6131195 5731196		5/31/94 6/19/95	6/31/94 8/1/95	F 11/1/95	F 4/26/95
•	⊢ #		⊢ ⊢	<u>-</u>	111	F F			ů.	-		и и			- 4		u.	ů.
STATION ID WELLS DEEP AQUIFER	TW-1	TW-2 (TEST @ 16:05)	TW-3 (TEST @ 08:10) (TEST @ 10:08)	TW-4	TW-8	DT-5A (duplicate)		32		DT-9			DT-10	INTERM. AQUIFER (VOLCANICS/SEDIMENTARY)	TW-1A	TW-2A (TEST @ 15:00)	LAOI(A)-1.1	LADP-3

			~ ~	~ ~	~		_	~		8			~		8		
Zn (mg/L)	<0.02	NA 0.06	<0.02	<0.02	<0.02	0.02	0.03	1 <0.02		1 <0.02	0.67	AN	1 <0.02		1 <0.02		0.04
V (mg/L)	60.07 60.04	NA 0.02	<0.01 <0.04	5 <0.01 5 <0.01	<0.01	-6.04	0.01	<0.01		<0.01	0.29	A A	1 <0.01		<0.01		0.02
TI (mul.)	<0.2	NA <0.2	ž ž	<0.005	N A	Z.	Z A	Z A		<0.2	<0.2	Ä	<0.01		<0,2		<0.2
Sr (mg/L)	<0.01 <0.01	0.11	0.06	0.06	0.10	0.17	0.11	0.11		0.18	0.54	Ä	0.12		0.12		0.14
Sn [mg/L]	<0.2 <0.2	NA .0.2	<0.2	<0.01	<0.2	<0.2	<0.2	<0.2		<0.2	<0.2	A A	0.02		<0.2		<0.2
Si (mg/L)	A A	X X	17	5 5	21	22	99	2		A A	A	8 A	16		A A		X A
Se (mg/L)	<0.005	NA <0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	Ą	<0.005		<0.005		<0.005
Sb (mg/L)	<0.06	NA <0.06	<0.06 <0.06	<0.06	<0.06	<0.05	<0.06	<0.06		>0.06	0.07	S A	<0.02		<0.08		<0.06
Pb (mg/L)	<0.003	<0.003	NA <0.003	<0.003	<0.003	<0.003	0.008	<0.003		0.007	0.18	<0.003	<0.003		<0.003		0.006
Ni (mg/L)	<0.02	NA <0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		<0.02	0.15	¥.	<0.02		<0.02		<0.02
Mo (mg/L)	0.53	NA 0.05	<0.01	<0.01	<0.01	<0.01	<0.01	0.02		<0.01	<0.01	¥	<0.01		0.23		<0.01
Mn (mg/L)	<0.01 <0.01	<0.01	<0.01 0.07	<0.01	<0.01	0.61	0.14	0.02		0.04	2.2	<0.01	0.01		0.04		2.8
C (mer)	A A	A A	<0.01	<0.01 <0.01	<0.01	0.01	0.01	0.01		Ä	A A	Ž V	<0.01		A		¥.
Hg (mg/L)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	0.0004	A A	<0.0002		<0.0002		<0.0002
Fe (mg/L)	6.0	6.1	<0.1 1.90	<0.1 0.5	9.0	1.3	4.	6.0		4.0	240	¥ Z	¥ ¥		2.1		5.1
Cu (mg/L)	<0.01 <0.01	NA <0.01	<0.01	<0.01 <0.01	<0.01	0.02	<0.01	<0.01		<0.01	0.13	¥.	<0.01		<0.01		0.02
Co (mg/L)	<0.01	6.07 PA	<0.02 <0.02	<0.01	<0.02	<0.02	<0.02	<0.02		<0.02	0.08	۸	<0.01		<0.02		<0.02
Cr (mg/L)	c0.01	NA .0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		×0.01	0.20	A A	<0.01		<0.01		<0.01
Cd (mg/L)	<0.005	NA <0.005	<0.005	<0.0005	<0.005	<0.005	<0.005	<0.00\$		<0.005	<0.006	Ą	<0.005		<0.005		<0.00\$
Be (mg/L)	<0.001	NA 0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001		<0.001	0.018	Ą	<0.005		<0.001		<0.001
	6.1	0.1 A	40.1 40.1	6.1	40.1	60.1	0.1	60.1		0.1	2.7	40.1	40.1		1.0		0.15
B Ba (mg/L) (mg/L)	<0.09	NA 0.09	<0.09 <0.09	<0.01 0.01	<0.09	<0.09	<0.09	<0.09		<0.09	<0.09	Ą	0.03		<0.09		0.31
	<0,006 <0,006	NA <0.005	NA <0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.01	<0.01		<0.005		0.006
Ag Al As (mg/L) (mg/L) (mg/L)	<0.2	N 7.2		4.1	1.2	2.5	11	9.		4.0	270	¥ X	¥		.		8.3
Ag (mg/L)	<0.01	NA 0.01	<0.01 <0.01	<0.01	<0.01	<0.01	*0.01	<0.01		<0.01	<0.01	WA	X Y		<0.01		<0.01
Date	6/9/94	6/21/95		1/17/95	6/14/94	6/14/94	6/15/94	T 6/16/94		¹ T 6/22/94	6/22/94	6/20/95	8/1/95		1 T 6/23/94		¹ T 6/20/94 <0.01
UIFER	(duplicate) T	u. 1-	ш н	шн	-	!	۰		you	L ,	F.	u.	ш. -	ınyon		you	
STATION 1D PERCHED AQUIFER (ALLUVIUM)	LAO-2	1 AOR-1	LAO-B		LAO-0.3	LAO-0.6	LAO-0.8	LAO-0.91	Pajarito Canyon	PCO-1	PCO-2	PCO-3	18-01685	Mortandad Canyon	MCO-5	Pueblo Canyon	APCO-1
PER	Š					33	3		Δ.					Mc		_	

STATION Ag AI Date (mg/L) (mg/L)	Canada de Buey	CDBO-6 T 11/29/94 <0.01 3.7 F 8/14/95 NA NA	CDBO-7 T 11/29/94 <0.01 9.3	PERCHED AQUIFER (SHALLOW VOLCANICS)	B1 T 2/2/96 <0.01 6.2	SUPPLY WELLS	Offsite	G-1A T 7/14/95 NA NA	G-6 T 7/14/95 NA NA	Onsite	O-4 T 4/28/94 <0.01 <0.2	(TEST @ 14:32) T 4/26/94 NA NA (TEST @ 13:29) T 4/26/94 NA NA (TEST @ 13:16) T 4/27/94 NA NA (TEST @ 13:21) T 4/26/94 <0.01 <0.2	San Ildefonso Pueblo	LA-5 1T 7/29/94 <0.01 <0.2	OTOW! HOUSE 1 7/29/94 <0.01 <0.2	OLD COMMUNITY 1 7/27/94 <0.01 <0.2	PAJARITO PUMP 1 1 7/27/94 <0.01 <0.2 T 6/24/96 NA NA	
As L) (mg/L)		<0.005 NA	<0.005		<0.005			A A	AN A		2 <0.005	NA NA 2		2 <0.06	2 <0.06	2 <0.06	2 <0.06	
E B		0.04 NA	5 0.04		05 0.21			A	AN A		60.0> 60	NA N		96 0.02	36 0.05	36 <0.2	36 0.3 31 NA	
Ba L) (mg/L)		4 0.2 NA	4.1.4		1 0.8			N	AN		9 <0.1	N NA		2 <0.1	5 0.3	.2 0.2	3 0.1 NA	
Be (mg/L)		0.001 NA	0.006		0.003			A	¥		<0.001	NA NA NA 0.001		1 <0.001	<0.001	<0.001	<0.001 NA	
Cd (mg/L)		0.0006 NA	<0.0005		<0.0005			NA	¥		1 <0.005	NA NA NA 1 <0.005		40.005	1 <0.005	1 <0.005	1 <0.005 NA	
Cr (mg/L)		3 <0.01 NA	6 <0.01		5 0.04			NA	A A		5 0.01	NA NA NA		6 <0.01	6 <0.01	5 <0.01	5 <0.01 <0.01	
Co Co		C0.01	<0.01		<0.01			N A	X A		<0.01	NA NA 0.01		- <0.01	- c0.01	- <0.01	0.07	
Cu Cu		0.01 NA	0.01		0.05			Y.	¥ Y		<0.01	AN AN 60.0		<0.01	<0.01	<0.01	<0.01 NA	
Fe (mg/L)		2.0	3.7		4.6			NA A	¥ Z		-6	AN AN 60.0		6 0.1	0.2	40.1	40.1 NA	
Hg (mg/L)		0.0002 NA	<0.0002		<0.0002			A A	N A		<0.0002	NA NA NA <0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
Li Li		<0.01 NA	<0.01	,	<0.01			NA A	A		0.04	% % % % % % % % % % % % % % % % % % %		A	Ā	Ā	X X A A	
Mn I		0.12 A	0.47		0.56			Ā	NA		<0.01	NA NA NA		<0.01	<0.01	<0.01	<0.01 NA	
Mo (mg/L) (m		<0.01 <(<0.01 <6		<0.01			NA A	A A		<0.01	NA N		<0.01	<0.01	<0.01	<0.01 ×	
NI P (mg/L) (m		<0.02 0.0 NA <0.	<0.02 0.0		0.06 0.0			NA <0.	NA O		<0.02 <0.	NA N		<0.02 <0	<0.02 <(<0.02 <(<0.02 <0	
Pb Si (mg/L) (mg		0.016 <0.	0.026 <0.		0.020 <0			<0.005 N	<0.005 N		<0,003 <0	NA N NA N NA N	•	<0.05 <0	<0.05 <0	<0.05 <0	<0.05 <0	
Sb Se (mg/L)		<0.06 <0.005 NA NA	<0.06 <0.0		<0.06 <0.0			A N	Z A		<0.06 <0.0	NA <0.0 NA <0.0 NA <0.0		<0.06 <0.	<0.06 <0.	<0.06 <0	<0.06 <0 NA N	
Se Si (mg/L) (mg/L)		0.005 32 NA NA	<0.005 46		<0.005 1			N A	N A		<0.005 4	0.005 N 0.005 N 0.005 N 0.005 N		<0.005 N	<0.005 N	<0.01 N	<0.01 NA N	
i Sn /L) (mg/L)		2 <0.02 A NA	6 <0.02		17 <0.02			NA NA	NA NA		44 <0.2	NA NA NA NA NA NA		NA <0.2	NA <0.2	NA <0.2	NA <0.2 NA NA	
L) (mg/L)		02 0.10 1 NA	0.23		02 0.08			AN NA	A A		.2 <0.01	A NA A NA		.2 0.22	.2 0.92	.2 0.49	.2 0.47 A NA	
. TI		0 <0.005	3 <0.005		8 <0.005			NA NA	NA NA		0.03	N NA		2 <0.2	2 <0.2	9 <0.2	17 <0.2 A NA	
(T) (WB(L)		05 <0.01 NA	05 0.02		05 <0.01			NA	NA		3 0.02	N NA 1 NA 2 <0.01		2 0.01	2 <0.01	2 <0.01	2 0.03 4 NA	
Zn Zm <u>g/L</u>)		1 0.02 NA	0.08		1 0.47			A	Ä		2 0.05	NA NA NA 0.02		90.08	1 0.10	1 <0.02	3 <0.02 NA	

(mg/L) <0.02 <0.01 <0.02 0.25 0.25 <0.02 0.19 c0.02 <0.02 €0.02 <0.01 <0.02 <0.02 0.19 c0.02 c0.01 <0.02 0.01 Zu 0.02 0.03 0.04 0.25 (mg/L) 6.016.04 <0.01 <0.01 6.01 6.01 0.0 <0.1 60.04 6.03 0.04 0.04 <0.1 0.05 0.06 0.02 <0.1 0.02 **60.0** 60.0 6.4 6.1 0.01 0.02 ٥.1 د > NA <0.005 NA <0.005 NA <0.005 NA <0.005 <0.005 NA <0.000 NA <0.005 <0.005 NA <0.005 <0.005 <0.01 NA NA -0.03 60.0 0.01 <0.01 <0.01 NA 0.03 0.01 6,07 F (mg/L) <0.1 <0.2 c0.1 0.15 0.05 0.22 0.15 0.22 0.13 <0.2 0.10 0.05 0.78 0.19 0.19 0.23 0.22 0.17 ટં 0.3 0.3 0.2 0.2 0.7 0.2 6. (mg/L) <0.02 0.02 **60.2** <0.2 **60,2** <0.1 60.2 0.02 ٥. 1. 60,1 0.03 Su 60.1 0.02 ç 0.7 60.1 0.02 60.2 ٥. 1. 0.01 0.03 ٥٥.1 **60.2** 0.02 (mg/L) S 33 34 34 ž ¥ 2 5 4 4 \$ \$ 52 22 ¥ 24 ž ž 24 7 2 3 3 5 92 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0,005 <0.005 <0.005 <0.005 0.012 0.00 0.014 0.009 0.005 NA <0.06 NA <0.06 <0.02 <0.06 <0.06 <0.02 NA 0.09 <0.06 AN 60.00 **0.09** <0.02 <0.02 <0.02 ¥ ¥ ¥ Š (mg/L) <0.003 <0.003 <0.003 <0.003 <0.001 <0.003 <0.003 <0.003 <0.003 <0.003 <0.003 <0.003 <0.003 <0.003 <0.001 <0.003 <0.003 <0.003 <0.003 <0.001 <0.001 <0.003 <0.001 <0.05 <0.001 0.004 0.005 <0.001 <0.001 <0.001 요 (mg/L) <0.02 <0.02 <0.02 <0.02 <0.02 <0.1 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 6 1.0 ٥.<u>1</u> 6. 60.1 60.1 <0.02 ٥. 60.1 60.1 Z (mg/L) 0.001 0.003 <0.01 0.001 **60.0** 0.001 <0.01 6.01 0.00 **c**0.01 **c**0.01 0.01 <0.01 0.01 0.001 <0.01 **60.0 c**0.04 0.00 10.0 0.001 0.01 0.001 <0.01 6.0 ٥,0^ 0.001 0.07 ŝ (mg/L) <0.01 <0.05 <0.05 <0.06 <0.05 <0.01 <0.0 <0.01 <0.01 <0.01 <0.01 <0.01 Ę <0.05 0.03 <0.05 0.60 <0.05 **c**0.01 <0.05 0.0 <0.04 <0.01 <0.05 0.07 0.05 0.01 0.02 0.02 NA 0.02 0.02 NA 0.03 0.04 0.04 0.04 0.05 0.05 0.05 0.02 A 0.0 N N 0.0 NA 0.03 0.03 0.03 = 0.02 0.03 ž <0.0005 <0.0002 <0.0005 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0005 <0.0002 <0.0002 <0.0005 <0.0005 <0.0002 <0.0005 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0005 <0.0005 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 (mg/L) 60.1 ٥. د 0.2 6.1 6. 6. ٥.1 د0.1 **60.1** ٥. 6.1 6 1. 6.1 6.1 60.1 **6**0.1 60.1 E. 7 6.0 7. 2.4 0.1 0.4 0.4 0.2 6.7 **0.0**1 (mg/L) **60.0** <0.01 <0.01 <0.01 **60.0** 0.02 <0.01 <0.01 <0.001 <0.01 <0.01 <0.01 6.01 0.03 **c**0.01 **c**0.01 <0.01 **60.04** <0.01 **60.04** 0.07 <0.0 0.0 **60.0 c**0.0 0.01 \overline{c} 0.0 (mg/L) <0.001 <0.05 <0.01 <0.05 <0.001 <0.01 **60.0 60.0** <0.05 <0.01 ¢0.05 <0.01 **60.0** <0.05 <0.05 <0.01 0.05 <0.01 <0.0 0.01 **60.0** 6.0 **c**0.01 60.01 60.01 0.01 ပ္ပ 0.002 <0.001 (mg/L) 0.003 0.003 0.003 0.003 <0.01 0.003 0.004 0.003 **60.0 60.0 c0.01** c0.01 0.01 0.07 <0.01 0.01 0.003 0.0 0.01 60.0 0.07 <0.01 ပ် <0.0005 <0.0005 <0.0001 <0.0006 <0.0006 <0.0006 <0.0005 <0.005 <0.001 <0.005 <0.005 <0.005 <0.001 <0.005 (mg/L.) <0.005 <0.001 0.001 <0.005 <0.001 <0.001 <0.005 <0.001 <0.001 <0.005 <0.005 <0.005 <0.005 <0.005 0.007 ဥ <0.001 <0.001 <0.001 <0.001 <0.005 <0.005 <0.005 <0.005 (mg/L) <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.005 <0.001 <0.001 60.1 **6**0.1 60.1 ٥. دو. (mg/L) 60.1 ٥. د 60.1 6. 6.0 0.1 6.7 60.1 60.1 ٥. م 60.1 Ва 6. 6.0 6.7 0.2 6 6 1. 0.7 6. 6. 60.1 6. 6. 60.1 0.3 0.3 6 6 (mg/L) <0.09 <0.1 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 90'0 60.1 0.02 0.02 60.1 **60.1** 0.05 60.1 9.0 0.03 **60.1** 60.1 0.03 0.03 0.02 0.02 60.1 0.01 **60.1** $\boldsymbol{\omega}$ 0.002 <0.005 <0.006 (mg/L) <0.005 <0.005 <0.005 <0.005 <0.005 <0.01 <0.001 0.021 0.004 0.003 <0.01 **40.08** 0.006 0.013 0.003 0.003 0.001 6,0 9.0 0.003 60.0 <0.01 0.00 (mg/L) <0.2 0.4 60.1 0.9 0.9 <0.2 6. <0.2 <0.7 <0.2 ٥. 1. <0.2 **40.2** <0.2 **60.2** 6. <0.2 6 **60.2** 6.1 7.1 6.2 A 60.2 ₹ 9.0 (mg/L) <0.01 <0.01 ¢0.01 ^0.1 60.01 60.1 60.01 <0.1 c0.01 0,0 60.1 60.0 <0.01 <0.1 0.01 **60.0** 6 6.1 <0.01 c0.01 6.01 0.07 0.07 ٥. 40. 4/4/94 4/10/95 6/17/95 9/12/95 4/12/95 7/28/94 3/30/95 3/30/95 4/10/95 4/10/95 4/20/95 3/24/95 F 4/20/95 9/27/94 4/5/94 4/6/94 4/4/94 6/5/95 4/4/94 6/6/95 4/4/94 4/5/94 4/6/94 4/4/94 4/4/94 u. SPRINGS White Rock **SPRING 3AA** STATION SPRING 3A **SPRING 4A SPRING 4B** A MESITA SPRING 2 SPRING 3 **SPRING 4** Canyon SPRING 1 ANCHO SANDIA DOE

	STATION Date	SPRING 5 F 4/10/95 T 4/10/95	SPRING 5A 1 F 9/12/95	SPRING 5B 1 F 9/12/96	SPRING 6 1 F 9/12/95	SPRING 6A ' F 9/12/95	SPRING 8A F 4/5/94	F 4/10/95	SPRING 9A F 4/6/94		F 411/96	SPRING 9B F 4/12/95 T 4/12/95	9 Los Alamos Canyon	BASALT 1 7/28/94	LOS ALAMOS F 6/3/95	LA-11.2 F 3/10/95	LA-5.19 F 7/14/95	Pajarito Canyon & Tributaries	UPPER STARMER'S F 6/19/96	CHARLIE'S 1 7 7/22/94		F 4/28/95 F 6/14/95	F 11/9/95	PERKINS F 4/28/96 F 6/24/96
		195 <0.01 195 <0.01	95 <0.01	195 <0.01	195 <0.01	/95 <0.01	94 <0.01		94 <0.1		/95 <0.01	795 <0.01 795 <0.01					195 <0.01							
	Ag Al (mg/L) (mg/L)	01 <0.2 01 <0.2	01 <0.2	01 <0.2	01 <0.2	01 <0.2	1.1 <0.1 01 0.4		1.1 <0.1		.04 2.02	.01 <0.2 .01 <0.2		<0.01 <0.2	<0.01 <0.0	<0.01 <0			<0.01 1.	<0.01 0.		60.01 NA 60.02		1 10.0>
	I As	.2 <0.01 .2 <0.005	.2 <0.01	.2 <0.01	.2 <0.01	.2 <0.01	.1 0.001				.2 <0.01	.2 <0.01 .2 <0.005			<0.2 <0.01	<0.2 <0.0	0.3 <0.		1.3			9.8 NA &		1.0 <0
•	s B (L) (mg/L)	01 0.03 05 0.03	o4 <0.1	01 <0.1	01 <0.1	01 <0.1										<0.005 0.	<0.01 0.		<0.01 <0			0.07 NA N		<0.01 0.
	Ba ELI (mg/L)	33 <0.1	-1 -0.1	.1 <0.1	1.1 <0.1		_			_	0.02	0.01 <0		0.22 <0	0.04 0	0.02 <(0.05 <(0.01 △			NA A	v V	0.01 <
	а Ве //L] (mg/L)	.1 <0.005	.1 <0.005	.1 <0.005	1.1 <0.005	<0.1 <0.005	<0.1 <0.01	<0.01 <0.005		<0.1 <0.001		<0.1 <0.005 <0.1 <0.005		6.1 <0.060.1 <0.0	0.2 <0.0	<0.1 <0.0	<0.1 <0.1		<0.1 <0.		9. 6		<0.1	60.1
	(L) (mg/L)	8 8	8	\$	8	8	გ გ	8						<0.001 <0.005 <0.005	<0.005 <0	<0.001 <0	<0.005 <0		<0.006 <0		<0.001 <0		¥ Z	< 0.005 <0.005
		.005 <0.	.005 <0.	00 <00	0> 900.	0> 900'	.0005 0.0	0> 900'		<0.0005 0.0		<0.005 <0 <0.005 <0		<0.005 <0 <0.005 <0	<0.005 <0	<0.005 <(<0.005 <(<0.005 <(<0.006		A A	<0.005
	Cr Cr (mg/L) (mg	<0.01 <0.01<0.01 <0.01	<0.01 <0.	<0.01 <0.	<0.01 <0.	<0.01 <0.	<0.001 <0.001 <0.001 <0.001 <0.001	<0.01 <0.	-	0.004		60.01 c0 60.01 c0		<0.01 <0 <0.01 <0	<0.01 <0	<0.01 <0	<0.01 <0		<0.01 <0		6.09 6.09 6.09		A A	60.01 0.01
	SO CO		<0.01 <0.	<0.01 0.0	<0.01 <0.	<0.01 <0	<0.05 <0.0>	<0.01 <0		60.01		<0.01 <0		<0.01 0	<0.01 <0	<0.01 <0	<0.01 0		<0.01		2. 6. 9. 2. 6. 9.		- AX	0.01
	Cu F	<0.01 <0	<0.01 <0	0.01 <0	<0.01 <0	<0.01 <0	<0.01 <0.01 0	<0.01		0.01		<0.01 <0.01 <0.01		0.01 <	<0.01	<0.01	0.01		<0.01				V V	0.01
	Fe H (mg/L) (mg	<0.1 <0.0	<0.1 <0.0	<0.1 <0.0	<0.1 <0.0	<0.1 <0.0	60.1 < 0.0	0.1 <0.0		6.3 4.6 6.6		6.1 60.		<0.1 <0. 0.3 <0.	<0.1 <0.	0.1 <0.	0.2 <0.		0.5 <0.		5. 5. 6. 6.		1.0	0.4 <0
	Hg L	<0.0002 0.	<0.0002 0.	<0.0002 0.	<0.0002 0.	<0.0002 0.	<0.0006 N <0.0006 0.	<0.0002 0.		<0.0002 0. <0.0002 0.		<0.0002 0 <0.0002 <0		<0.0002 h	<0.0002 0	<0.0002 0	<0.0002 <0		<0.0002 <		<0.0002 <		A A	<0.0002 <
	Li Mn (mg/L) (mg/L)	0.03 <0.01 0.02 <0.01	0.03 <0.01	0.02 <0.	0.02 <0.	0.02 <0.		0.03 <0	NA <0			0.03 <0 <0.02 <0		NA 0.	0.02 <0	0.01 <0	<0.01 0		<0.01 <0		<0.01 0.02 0.03 0.03 0.03 0.03		¥ Y	<0.01
	Mn Mo mg/L) (mg/L)	<0.01 <0.01 <0.01 <0.01	.01 <0.01	<0.01 <0.01	<0.01 <0.01	<0.01 <0.	<0.05 0.0 0.02 <0.	<0.01 <0.		60.01 60.02 60.02 60.03		6.01 6.01 6		0.03 <0 0.07 0.	<0.01 <0	<0.01 <0	0.02 <0		<0.01 <0		\$ 50.05 \$ \$		40.01	\$ 10.0° \$ 10.0°
	lo Ni I/L) (mg/L)	.01 <0.02 .01 <0.02	.01 <0.02	.01 <0.02	.01 <0.02	<0.01 <0.02		<0.01 <0.02		<0.01 <0. <0.01 <0.		<0.01 <0.02 <0.01 <0.02		<0.01 <0.0 0.01 <0.	<0.01 <0.	<0.01 <0	<0.01 <0		<0.01 <0		<0.01 <0 <0.01 <0		Z V	<0.01 <0 <0.01 <0
	i Pb	02 <0.003 02 <0.003	02 <0.003	02 <0.003	02 <0.003	02 <0.003		02 <0.003	•	<0.02 0.003 <0.02 <0.003				<0.02 <0.03 <0.02 <0.0	<0.02 <0.0	<0.02 <0.0	<0.02 <0.		<0.02 <0.	<0.02 <0			Z Y	<0.02 <0. <0.02 <0.
	o Sb	03 <0.02 03 <0.02	103 <0.02	103 <0.02	103 <0.02	003 <0.02		003 <0.02		03 <0.06 203 <0.02		<0.003 <0.02 <0.02 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00		<0.05 <0.06 <0.06 <0.003 <0.02	<0.003 <0.02	<0.003 <0.	<0.003, <0.02		<0.003 <0.	<0.05 <0.05			Z Y Z	<0.003 <0 <0.003 <0
	C Se	22 <0.005 32 <0.005	02 <0.005	02 <0.005	02 <0.005	02 <0.005		02 <0.005		06 <0.005 02 <0.005		02 <0.005 02 <0.005		.06 <0.005	.02 0.005	<0.06 <0.005	.02 <0.005		<0.02 <0.005	<0.06 <0.0			NA NA	<0.02 <0.0 <0.02 <0.0
	Si (mg/L)	32 32	30	05 32	05 37	05 39		05 38	36			35 35		105 NA 105 26	17 90	306 29	006 20		305 18	<0.005 17				<0.005 1 <0.005 1
	Sn (mg/L)	<0.03	<0.02	<0.02	<0.02	<0.02		0.03	60.1			0.02		A <0.2 5 <0.01	7 0.01	9 <0.02	0.01		8 0.01	7 <0.2			۲ 8	15 <0.02 18 0.02
	Sr L) (mg/L)	3 0.09	2 0.19	2 0.09	2 0.08	2 0.04		3 0.04	1.00.1			3 0.05		2 0.18	1 0.19	92 0.06	1 0.08		1 0.05	2 0.07			80.0 8	02 0.08 02 0.05
	T1 (mg/L)	<0.01	<0.01	<0.01	3 <0.01	t <0.01	•	¢ 0.03	NA C			6 6.01 10.04		8 <0.2	9 <0.01	6 <0.006	8 <0.01		6 <0.01	7 <0.2			8 N	38 <0.01 35 <0.01
•	(mg/L)	1 0.01	- 0.0	1 0.01		40.01	•	0.04	6.4					2 <0.01	10.01		70.01	.e	V <0.01	2 <0.01			₹ <0.01	0.01 0.01
	Zn (mg/L)	<0.02	<0.02	<0.02	1 <0.02	1 <0.02		<0.02	- <0.01 2007			<0.02		1 0.06	1 0.03	4 <0.02	10.02		14 <0.02	11 <0.02			74 <0.02	0.03

STATION ID	-	Date (Ag Al (mg/L) (mg/L)		As (mg/L) (r	B (mg/L) (r	Ba (mg/L) (Be (mg/L)	Cd (mg/L)	Cr.	Co (mg/L) (Cu (mg/L)	Fe (mg/L)	Hg (mg/L) (t	Li	Mn (mg/L) (r	Mo (mg/L) (ri	Ni (J/6iii)	Pb (Hgm)	S qs	Se S (mg/L) (m	S is	Su S (mg/L) (mg	Sr Ti (mg/L) (mg/l	TI V (mg/L)	Zn Zu (mg/L)	- 3
JOSIE	IT.	6/19/96	<0.01	7	<0.01	<0.01	<0.1 ×	<0.005	<0.005	<0.01	<0.01	<0.01	4.0	<0.0002 <	< 10.0>	<0.01	<0.01	<0.02 <0	<0.003 <(<0.02 <0.	<0.005	17 <0	<0.01 0.05	10:0> 90	0.01	10.02	22
STARMER'S	1	7/22/94 < 2/24/95 < 4/28/95 < 11/9/95	60.01 60.01 NA	6.3 6.7	<0.06 <0.005 <0.01 NA	0.01 0.03 <0.01	60.1 60.1 60.1	<0.001 <0.001 <0.005 <0.005 NA	<0.005 <0.005 <0.005 NA	60.01 0.001 NA	<0.01 <0.01 <0.01 NA	60.01 60.01 0.01 NA	0.4 4.5 0.6 0.0 0.1	<0.0002 <0.0002 <0.0002 <	NA 0 -0.01 -0.01 NA ^	0.002	60.01 6 60.01 6 80.01 6	60.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02	<0.05<0.003<0.003<0.003NA	<0.06 <0.06 <0.06 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07	<0.005 N	NA 40 38 0.1 15 40	<0.2 0.07 0.02 0.10 <0.02 0.09 NA 0.07		<0.2 <0.01 <0.005 <0.01 <0.01 <0.01 NA <0.01	01 0.05 01 0.03 01 0.03	5000
BRYAN	16	5/19/95	<0.01	8.	<0.01	<0.01	<0.1 <	<0.005	<0.005	<0.01	×0.01	<0.01	9.0	<0.0002	<0.01	<0.01 ^	<0.01 △	<0.02 <0	<0.003 <	<0.02 <0.0	<0.005 2	20	0.01 0.07		<0.01 0.06	6 <0.02	8
HOMESTEAD	π + π π π ∞ 2 4 2 ÷	8/9/94 2/24/95 4/28/95 6/22/95	60.01 60.01 60.01 NA	6.7 < 6.7 < 0.8 < 0.80 <	0.001 -0.005 -0.01 -0.01	0.01 0.05 0.05 0.01	0.00 0.	<0.1<0.001<0.005<0.005NA	<0.001 <0.005 <0.005 NA	0.003 <0.01 <0.01 NA	<0.05<0.01<0.01<0.01<0.01	<0.01 <0.01 <0.01 NA	1.50 × 4.9 × 0.3 × 0.3 × 0.1	<0.0005 <0.0002 <0.0002 <0.0002 NA	AN 60.01 (0.01 0.01 0.01 0.01 0.01 0.01 0.01	0.05 0.02 < 0.01 < 0.01 <	60.160.0160.0160.0178910.01101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010<	<0.1 < <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 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KIELING	π 10	5/19/95	<0.01	1.3	<0.01	0.01	<0.1 ×	<0.005	<0.005	<0.01	<0.01	0.01	9.0	<0.0002 <	<0.01	0.01	<0.01 <	<0.02 <0	> 6.00.0>	<0.02 <0.	<0.005 1	19 0.	0.01 0.0	0.08 <0.	<0.01 <0.01	11 0.02	8
BULLDOG	*****	819/94 2124/95 • 4/28/96 • 11/9/95	60.01 NA NA	0.90 0 0.9 4 1.3 4 0.2	0.002 <	0.03 0.01 NA NA	60.1 c c c c c c c c c c c c c c c c c c c	<0.001 <0.001 NA NA	<0.001 <0.005 <0.005 NA NA	0.003 <0.01 <0.01 NA	<0.05<0.01<0.01<0.01NANA	<0.01 <0.01 NA NA	0.60 0.6 0.6 0.5 0.1 NA	<0.0005 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.00002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.00	0.01 v NA v NA v	0.08 -0.01 < -0.01 < -0.01 NA	60.01 6 60.01 6 NA 1	60.160.0260.0260.02NANA	40.003 40 40.003 40 NA 7	NA 60.05 60.02 60.02 NA NA	<0.005<0.005<0.0051NANANA	20 40 19 40 NA N	<0.1 <0.1<0.01 0.11<0.02 0.11NA 0.11		NA <0.1 <0.005 <0.01 <0.01 <0.01 NA <0.01	1 <0.1 01 0.03 01 0.04 01 <0.02	- c + c .
SM-30A	1 F 6/	6/29/95	<0.01	1.2	<0.01 ^	<0.01	0.6 A	<0.005	<0.005	<0.01	<0.01	<0.01	0.5	<0.0002 <	<0.01 <	<0.01 <	<0.01	<0.02 <0	<0.003 <(<0.02 <0.		8.1	<0.01 0.05	25 <0.01	01 <0.01	0.14	4
TA-18	. r . v	3/21/94 4	<0.01 <0.01	0.3 <	<0.06 <	<0.09	6.1	<0.001	<0.005	<0.01	<0.01 <0.01	<0.01	3.1	<0.0002 <	<0.01 <0.01	0.59 <	<0.01 <	<0.02 <0.02 <0.02 <0	<0.05 <(<0.06 <0.08 <0.08	<0.005 1	2 t	<0.2 0.08 <0.02 0.07		<0.2 <0.01 <0.005 <0.01	71 <0.02 71 <0.02	2 2
THREEMILE (A)	1L	6/23/95	<0.01	∄	<0.01	<0.01	6.1		<0.005	<0.01	<0.01	0.01	4.0	<0.0002 <	<0.01 ×		<0.01					15 <0		0.01	01 <0.01		2
THREEMILE (B) Tensite Canyon	E.	6/23/95	<0.01	0.7	<0.01	. 0.01	6.1	<0.006	<0.005	<0.01	<0.01	0.01	4.0	<0.0002 <	<0.01 <	<0.01 <	<0.01 A	<0.02 <0	<0.003 <0	<0.02 <0.02	<0.005	4	<0.01 0.07	27 <0.01	0.01	> 0.02	2
TS-1.42	F 10	F 10/18/95 <0.02		0.57 <	<0.006	A A	0.12	<0.002	<0.002	<0.002	<0.02 0	0.0061	4.	<0.002	NA A	0.74 <	<0.02 <	<0.05 <0	<0.005 <	<0.1 <0.	N 500.0>	NA <0	<0.1 NA		<0.005 <0.02	2 <0.05	8
Water Canyon & Tributaries																											
BURNING GROUND		8/12/94	0.10 0	0.40 0.4	0.0005 <	<0.10 (0.30	<0.10	<0.001	0.002 <	<0.001	<0.01	0.30 <	<0.0005	NA	<0.05 <(<0.001 <6	<0.10 <0 <0.02 <0	<0.001 }	NA <0.	<0.005 2	20 20 0. 0.	<0.10 0.10 <0.02 <0.01	10 NA 01 <0.005	A <0.10	10 <0.10 11 <0.02	2 2
SWSC (duplicate)		8/12/94 3/17/95 3/17/95 <	<0.10 c	0.30	<0.001 <0.006 <0.006	<0.10 <0.01 NA	0.30	<0.10 <0.001 <0.002	<0.001 <0.005 <0.002	<0.001 <	<0.001 <0.01 <0.02	<0.01 <0.01 0.005	0.20 × 0.4 × 0.6 × 0.6	<0.0005 <0.0002 <	0.01 AN	<0.001 < <0.01 < <0.02 <	60.10 c	0.10 <0.02 <0.05 <0.05 <0	<0.001 } <0.003 <0 <0.006 <	NA <0.	<0.005 2 <0.005 2 <0.005 N	22 <0 22 <0 NA <0	<0.10 0.10 <0.02 <0.01 <0.1 NA	0.10 NA <0.01 <0.005 NA <0.05	A <0.10	10 0.02 11 0.04 12 <0.05	2 4 8

MOITATA		à	4		Δc	α		œ œ	S	ن	ပ္ပ	C	F	£	=	Mn	Mo.	Z.	Pb S	SpS	Se Si	i	s.	F	>	Zu	
	Date		크		~	a	~	_	_	~	~	~	~	~	~1	~	_	(mg/L) (mg	(mg/L) (mg	(mg/L) (ms	(mg/L) (mg/L)	/L) (mg/L)	(T) (m8/F)	(T/BW) (T	(mg/L)	(mg/L)	71
MARTIN	F 6/12/95	/95 <0.01	01 <0.2		<0.01	1.4	0.2 <0	<0.005 <	<0.005	<0.01	<0.01	<0.01	\$0.1 \$	<0.0003 <	> 10.0>	<0.01 <	<0.01 <(<0.02 <0.	<0.003 <0.	<0.02 <0.0	<0.005 23	3 0.02	2 0.12	2 <0.1	<0.01	<0.02	~
PETER	F 6/2/95	96 <0.01	01 <0.2		<0.01 0	0.04	0.0	> 300.0>	<0.005 →	<0.01	<0.01	, 10.01	60.1 <€	<0.0002 <	> 0.0>	<0.01	6.1 ^	<0.02 <0.	<0.003 <0.	<0.02 <0.0	<0.005 18	8 <0.01	N 0.11	<0.01	- 40.01	1 0.07	
ноггом	T 12/9/94 F 3/17/95	194 <0.01			<0.06 0,	0.03 <	<0.1 <0 0.2 <0	<0.001 <	<0.005	<0.01 ×	<0.01 <	<0.01	0.1	<0.0002	0.01 c	0.13 <	<0.01 <0.01 <0.01	<0.02 <0	<0.05 <0. <0.003 <0.	<0.06 <0.0	<0.005 NA<0.005 15	A <0.02 5 <0.02	0.05	5 <0.2 5 <0.005	. <0.01 5 <0.01	1 0.03	
FISH LADDER	F 6/2/95	95 <0.01		2.0 <0	<0.01 0	0.20	1.7	> 500.0>	<0.005	<0.01	<0.01	<0.01	1.0 A	<0.0002	0.02 0	0.01	6.1	<0.02 0.6	0.003 <0.	<0.02 0.0	0.006 18	8 <0.01	0.04	4 <0.01	1 <0.01	1 0.06	
VA-0.8	T 12/9	T 12/9/94 <0.01	.01		0 90'0>	0.04	0.6 <0	<0.001	×0.005	<0.01	<0.01	<0.01	6.3	<0.0002	NA O	> 20.0	<0.01 A	<0.02 <0	<0.05 <0	<0.06 <0.	<0.005 N	NA <0.02	02 0.09	9 <0.2	2 <0.01	1 <0.02	8
WC-6.25	F 8/4/95	95 NA		<0.2 N	N A	0.04	0.5 <(<0.005	A X	<0.01	A A	Ā	60.1	<0.0002	A A	<0.01	A A	NA <0.	<0.003 N	NA N	NA 1	9 Z	NA 0.12	2 NA	<0.01	1 <0.02	7
Other Springs																											
SACRED	1 7 7/28	T 7/28/94 <0.01		0> 6:0	<0.06	0.03	0.2 <€	<0.001	<0.005	<0.01	<0.01	<0.01	6.0	<0.0002	A A	0.03	<0.01	<0.02 <0	<0.05 <0	<0.06 <0.	<0.005 N	NA ^0	<0.2 0.51	1 <0.2	2 <0.01	1 <0.02	ğ
GC-10.8	F 3/26/95 F 10/16/95		<0.01 1. <0.01 <0	1.0 <0. <0.2 <0	<0.005 0	0.02	60.1	<0.001 <	<0.005 <0.006	<0.01	<0.01 - 10.03	<0.01	0.6 <	<0.0002	0.01 <	<0.01 <	<0.01 <	<0.02 <0 <0.02 <0	<0.003 <0 <0.003 <0	<0.06 <0.06 <0.02 <0.02 <0.00	<0.005 4	24 0. 24 0.	0.03 0.09 <0.01 0.07	9 <0.005 7 <0.01	06 <0.01 11 <0.01	1 <0.02	2 2
PINE SPRING	F 10/1	F 10/16/95 <0.01 <0.2	£0. ∆		<0.01	<0.1 ^	<0.1 <(<0.005	<0.005	<0.01	<0.01	<0.01	<0.1 ×	<0.0002	<0.01	<0.01	<0.01 ×	<0.02 <0	<0.003 <0	<0.02 <0	<0.005 2	25 <0	<0.01 0.10	0 <0.01	10.07	1 <0.02	2

· sample not received at contract laboratory at 4 degrees Celsius <- symbol indicates that the constituent was not detected above method detection limits

<0.02

<0.01

0.11 <0.005

<0.02

¥

<0.01 <0.02 <0.003 <0.06 <0.005

0.07

Ä

<0.0002

0.5

0.03

0.1 <0.001 <0.005 <0.01 <0.01

<0.005 0.02

7:

1 F 12/27/94 <0.01

PINE SPRING GC-0.36

NA - Not analyzed or applicable

Note: Shaded dates indicate the sample was acidified prior to flitration or analysis, and represents total metals.

T; indicates that the sample was acidified prior to filtration or analysis, and represents total metals.

F: indicates that the sample was filtered through a 0.45 micron filter prior to acidification or analysis, and represents dissolved metals.

APPENDIX C

Analytical Results for Total and Dissolved Radionuclides

·		·		
			·	

ta IIL) <u>unc</u>		4.80 BDL 6.3 1.7	16 0.75 A A 2.0	 AN AN	<4.68 BDL 3.08 0.84	-1.68 BDL NA	2.52 0.60 2.80 1.1		2.10 0.56 <2.9 BDL		5.8 1.7	<4.33NANA<3.280L	7 1.3	9.5 1.5
Gross Beta unc (pCi/L)			BDL 2.46 - NA - NA - NA - BDL 3.3	Z Z		BDL <1.6i	BDL 2.1		8DL 2.		BDL 55	BDL <4.3; - NA - NA - NA - SDL <3.2	0.87 6.7	3.2 9
Gross Alpha (pCi/L) ur		<4.48 BDL <7.9 BDL	<2.06 BDL NA · NA · <1.6 BDL	A A	<3.17 BDL <0.60 BDL	AN NA NA NA NA NA NA NA NA NA	<1.85 BE <1.3 BE		<1.81 BI <2.8 BI		<55.13 69.0 BII	<3.51 BI NA NA <2.7 BIG	3.67 0.	11.7 3
llo Al		> .	No.		. BDL . ⊗	80L < 80L F	0.074 < 1		0.064		전 ·)	8DL 3	BDL 1
241Am (pCi/L) ^{ui}		<13.993 BI	-11.315 B NA NA NA	A A	<11.763 B NA	<3.0280.120.068<0.068<0.068<0.06	0.144 0.0 NA		0.099 NA NA		412.25/ B NA	<12.942 B NA NA NA	ч 90.0>	<0.04 B
nuc (80L <	80L 80L 80L		9DL <	BOL	0.036		0.038 BDL		80L 80L	> 80r 80r 80r	BDL	BDL
239/240Pu (<u>pCi/L)</u>		<0.008	<0.020 <0.27 <0.22 <0.34	A A	<0.019 <0.03	0.04 NA NA NA NA	0.045 NA	0.045	0.090 <0.02		<0.034	<0.021 <0.44 <0.36 <0.33	<0.03	<0.03
on		BDL BDL	80L 80L 80L		BOL	BDL	BDL .	0.065 BDL	108		90°	108 801 801	BDL	BDL
238Pu (pCi/L)		<0.033 <0.03	<0.046 <0.42 <0.35 <0.59	₹ ₹	<0.054 <0.02	0.102 N N N N N N N N N N N N N N N N N N N	<0.080 NA	0.135	<0.094 <0.08	1	<0.051 <0.05	<0.036 <0.50 <0.44 <0.48	<0.08	<0.15
234U 235U 238U (<u>pCIIL)</u> (<u>pCIIL)</u>		A A	4 4 4 4 2 2 2 2	₹ ₹ Z Z	A A	\$ \$ \$ \$ \$ 2 2 2 2 2 2 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	A A	A A	ς ς Σ Ζ	:	ζ Z Z	4 4 4 4 2 2 2 2	0.16	Z Y
235U (pCI/L)		Z Z	∢ ∢ ∢ ∢ z z z z	₹ ₹	₹ ₹	<pre>< < <</pre>	A A A	₹ ₹ Z Z	₹ ₹ Z Z	;	₹ ¥	4 4 4 4	0.07	ž
234U (pCI/L)		Z Z	4 4 4 4 2 2 2 2	δ ς Σ Σ	Υ Υ Υ	<pre></pre>	A A	Y Y	ς ς Σ	;	Z Z	4 4 4 4 2 2 2 2	0.30	ž
nuc		0.380	0.023		0.15	0.07	0.031		0.041		0.038	0.088	٠	,
U (ug/L)		2.821 NA	0.171 NA NA N	A A	1.27 NA	0.51 N N N N N N N N N N N N N N N N N N N	0.230 NA	0.284 NA	0.308 NA		0.384 NA	0.651 NA NA	ž	Š
임		108	8DF	. ,	BOL ·	BDL	BDL ·		. BDL		10B •	BDF	BDL	BOL
137Cs (pCi/L)		<2.912 NA	<2.885 NA NA NA	₹ ₹	<3.111 NA	8.5. 4 X X X X X X X X X X X X X X X X X X X	<4.143 NA	<2.865 NA	<3.356 NA		<3.294 NA	<3.297 NA NA NA	<3.56	<3.97
e l		BDL .	BDL · ·	108 801	1.00 BDL	BDL	BDL .	. BDL	BDL .		ы В	BDi	BDL	BDL
90Sr (pCi/L)		<0.69 NA	<0.70 NA NA NA	2. t.	6.59	0.84 A A A A A	<1.32 NA	<1.36 NA	<0.82 NA		<0.65 NA	0.72 N N N N N N N N N N N N N N N N N N N	<0.66	<0.65
nuc		BOL			80r		BDL	BDL ,	. BDL		BDL	255.8 BDL	•	210
H3 (pci/L)		NA <180	4 4 4 4 2 2 2 2	Z Z Z Z	<165.7 NA	4 4 4 4 4 2 2 2 2 2	<168.9 NA	<169.0 NA	<169.0 NA		×180	2607.2 NA NA <470	Υ Υ	1470
Date		T 5/31/94 F 6/19/95	T 5/31/94 T 8/1/95 T 8/1/95	T 7/18/95 T 7/18/95	1 T 6/20/94 T 10/19/95	' F 10/21/94 T 7/17/95 T 7/17/95 T 7/17/95	1 T 9/8/94 F 11/13/95	1 T 9/8/94 F 5/30/95	1 T 9/8/94 F 5/31/95	Y l ~	T 5/31/94 F 6/19/95	T 5/31/94 T 8/1/95 T 8/1/95 T 8/1/95	F 11/1/95	F 4/26/95
STATION <u>ID</u>	WELLS DEEP AQUIFER	TW-1	TW-2 (TEST @ 09:48) (TEST @ 13:16) (TEST @ 15:05)	TW-3 (TEST @ 08:10) (TEST @ 10:08)	TW-4 (TEST @ 13:30)	TW-8 (TEST @ 09:10) (TEST @ 11:00) (TEST @ 13:66) (TEST @ 17:10)	DT-5A	DT-9	DT-10	INTERM. AQUIFER (VOLCANICS/SEDIMENTARY)	TW-1A	TW-2A (TEST @ 09:48) (TEST @ 13:10) (TEST @ 15:00)	LAOI(A)-1.1	LADP-3

															•	,	1	ტ <	Gross	υ -	Gross	
STATION ID	Date	H3 (pCi/L)	nuc	90Sr (pCI/L) unc		137Cs (pCi/L)	ol nuc	n (7/6n)	unc (E	234U 235U (PCI/L) (PCI/L)	235U 2 (PCI/L) (P	238U 2 (PCI/L) (E	238Pu (pCi/L)	unc 23	239/240Pu (pCi/L)	nuc 7	(pCi/L)			nuc	~	nuc
PERCHED AQUIFER (ALLUVIUM)	c ∠l																					
Los Alamos Canyon																						
LAO-0.7	1 T 11/30/94 F 6/21/95	<710 NA	BOL .	<0.76 NA	BDL .	<3.78 NA	BDL .	A A		0.33	<0.04 (0.14)	0.33 3.45	<0.09	BDL.	0.35	0.08	0.09 NA	0.04	7.2 32.0	5.2	6.9 20.9	3.0
LAO-1	F 6/21/95	<170	BDL	Š Š		<3.04	BOL	₹ Z		0.16	<0.03	. 60.0	<0.06	BDL	0.05	0.02	<13.9	BDL	<2.3	BDL	12.9	1.9
LAO-2 (duplicate)	T 6/9/94 T 6/9/94	886.3 941.4	76.4	39.23 35.85	3.94	<1,480	80L	0.089	0.012	A A	4 4 2 4	¥ ¥	0.027	0.018 BDL	<0.018 <0.015	80r	<3.970 <7.077	BDL	<3.31 <2.99	BDL	73.27 65.18	8.78
	F 6/21/95	<170	BDL	Ž		¥	٠	Ą		¥	ď Z	Ą	¥		N A		N A	•	Ą.		Ą	•
LAOR-1	T 6/9/94	1866.7	185.4	27.00	3.07	<3.026	BDL	4.369	0.588	Ą	Š Š	Š Š	<0.030	BDL	0.053	0.022	<11.688	BOL	7.03	1.92	52.87	6.49
LAO-B		A A		<0.74		<2.990 <2.10	BDL BDL	0.61 NA	0.08	0.08	0.03	NA .	<0.036	BOL BOL BDL	<0.019 <0.04 <0.19	80r 80r	<11.858 0.15 0.56	BDL 0.04 0.15	<1.43 <1.5 <4.0	8DL 8DL 8DL	2.68 <1.8 <6.8	0.62 BDL BDL
(T 1/17/95	Y Y		<3.8 <0.76	80L 80L	<3.398	BDL BCL	40.54 0.54	. BDL	S Z			<0.052	BDL	0.146	0.039	<13.129	BDL	<3.10	BDL	<3.07	BOL
LAO-0.6	T 6/14/94			<0.72	BDL	<1,557	BDL	<0.60	BDL	A A	¥	∀	0.058	0.025	<0.023	BDL	<7.248	BDL	<4.54	BDL	6.53	1.51
LAO-0.8	T 6/15/94	V	BDL	<0.80	BDL	<2.840	BDL	1.22	0.15	Ą	Ą	Ϋ́	<0.040	BDL	0.023	0.018	<13.743	BDL	<3.45	BDL	6.94	1.33
LAO-0.91 (duplicate)	H- IL		48.7	2.67 NA	0.56	<3.502 NA	BDL .	<0.59 NA	BDL .	<u> </u>	A A	A A	<0.072 NA	BDL .	0.035 NA	0.018	<12.625 NA		<2.13 NA	BOL .	9.80 N A	1.49
Pajarito Canyon										:	;	:		į	6	č	713 814	Ē	<1 76	Ö	4.56	0.85
PCO-1	1 T 6/22/94		25.3	<0.68		<2.804		<0.24	BOL	∀	∀	ξ 2	<0.05/	10 BO	<0.022		<12.868	BDL	48.01	7.31	47.00	5.91
PCO-2	1 1 6/22/94	293.4	25.3	4.49	0.82	53.400	BDL	3.32	î S	<u> </u>			4		50	ā	Ą	,	55.08	8.37	63.16	7.96
PCO-3	1 T 8/15/94 F 6/20/95	<167.2 NA	25.3	<0.72 NA	BDL ,	₹ ₹		11.299 NA	1.553	0.18	0.03	0.08	<0.01 NA	, BD ,	NA NA	, BDL	Z Z		¥ X		₹ Z	•
18-01685	F 8/1/95	¥ X	•	¥ ¥	٠	¥ Z	•	A	,	Y Y	Υ Y	₹ Z	Š Z		Υ	•	¥ Y		<3.7	BDL	5.0	0.1
Mortandad Canyon																	i i	į	80	Ž	141 57	18 72
MCO-5	¹ T 6/23/94	22137.9	1899.2	38.12	4.20	<1.591	BDL	2.58	0.30	Ϋ́	Ϋ́	¥	0.045	0.028	0.077	0.028	022.7>	70E	95. <i>1</i>	3		<u> </u>
Pueblo Canyon																	100		9	2	25.50	4 21
APCO-1	1 T 6/20/94 F 6/23/95	1 <165.8 5 <180	BDL	1.08 NA	0.27	<3.453 NA	. BDL	0.94 NA	0.17	Z Z	Z Z Q Q	ζ ζ Z	<0.047	80r 80r	0.06	0.033	< 12.703 NA	, E	<8.7	BDL	23.9	3.4

nuc		1.75	3.14								BOL			•				0.60	BDL		1.11	вог	BDL	BDL
Gross Beta (pCi/L)		7.58	20.60		Ą		:A :C	AN F	¥ Y	.ew.	<3.52	Ą		Z 2	₹ ₹ :	ď Z		2.20	<3.77	2	6.07	<4.46	<14.65	<3.8
on n		1.71 BDL	3.18		•						BOL	•						BDL	BDL BDL		2.79	BDL	4.56	BDL
Gross Alpha (pCi/L)		6.37	16.81		Ą			Ą.	Ā		<2.15	N A	Ą	Υ S	{	₹ Z		<2.21	<3.24	:	16.38	<4.11	12.68	<2.7
oun		801	BOL		•			•	,		BDL	•	BDL	8DL		•		BDL	BDL .		BDL	BOL	BDL	
241Am (PCI/L)		<6.32 NA	<7.12		N A			A A	N A		<12.788	Υ V	<12.625	<13.684	<9.529	∢ Z		<11.444	<16.135 NA		<15.984	<13.778	<12.511	A A
n					BOL			BOL	BDL		0.018	BDL		٠		BDL		BDL	0.018 BDL	3	BDI.	BOL	BDL	BOL
239/240Pu (PCI/L)		A A	Ą		<0.01			<0.57	<0.61		0.023	<0.37	Ą	¥ S	¥ ¥	<0.25		<0.017	0.032	3	<0.023	<0.032	<0.039	<0.02
ou n					BOL			BOL	BDL		BOL	BDL	•			BDL		BOL	0.024 BDI	Š	BDL	BOL	BDL	BDL
238Pu (pCi/L)		A A	A A		<0.03			<0.71	<0.66		<0.009	<0.52	Š	¥ S	Z Z	<0.30		<0.039	0.059	2	<0.057	<0.048	<0.048	<0.08
238U (PCI/L)		Ž Ž	¥		Ā	•		Ą	Ϋ́		Ą	Ā	Š	Ž S	₹ ₹ :	₹		Ϋ́	Z Z	<u> </u>	¥	Š Š	¥ V	¥
235U (PCI/L)		X X	Š Š		¥			¥	¥		¥	Å	A A	¥ S	₹ ₹ :	₹		¥	A A	<u> </u>	Ϋ́	¥	¥ ¥	¥ ¥
234U 235U 238U (pCIIL) (pCIIL) (pCIIL)		₹ ₹	A A		A A			¥	Š		¥.	¥	₹ Z	¥ S	₹ <u>₹</u>	₹ Z		¥	A A	Ę	Ϋ́	¥	¥	₹ X
nuc											0.120	•				,		0.161	0.630		5.961	0.918	3.638	
U (ug/L)		₹ ₹	A A		Š			¥ X	ď Ž		0.890	Ą Ą	Ą V	₹:	Z Z	∀		1.198	4.677 NA	<u> </u>	44.280	6.800	27.030	Ą V
nuc		BDL .	BDL		•						BOL	•	BDL		80F			BDL	BDL		BDL	BDL	BDL	
137Cs (pCl/L)		<1.82 NA	<1.88		X A			A A	A A		<3.356	A A	<3.379	<2.865	<2.753	Υ Y		<2.962	<4.017 NA	<u> </u>	<3.992	<2.757	<3.259	¥ V
nuc			•					•	•		BDL	•	BDL		80 g	•		BOL	BDL		BOL	0.39	BDL	•
90Sr (pCi/L)		₹ ₹	X A		X A			Z A	X A		<0.72	Ϋ́	<0.77	<0.79	<0.72	X A		<0.67	<0.68	Š	<0.81	1.01	<0.68	Ϋ́
nuc.			•					•	•		•	•	•	•		•		•	• .		•	٠	•	•
H3 (pCi/L)		A A	A A		Ą			A A	Ą		Ą V	Ą	, ¥	¥:	ξ χ Σ	Υ Y		A A	¥ ¥	Ž	¥ Y	¥	A A	¥ ¥
Date		T 11/29/94 F 8/14/95	T 11/29/94	6 4]	F 2/2/95			T 7/14/95	T 7/14/95		T 4/28/94	T 7/14/95	T 4/25/94	T 4/26/94		T 7/14/95		1 T 7129/94		F 5/24/95	1 T 7127/94	1 T 7/27/94	1 7 7/27/94	T 5/25/95
STATION	Canada de Buey	cDBO-6	CDBO-7	PERCHED AQUIFER (SHALLOW VOLCANICS)	18	SUPPLY WELLS	Offsite	G-1A	9-9	Onsite	4	PM-2	PM-3 (TEST @ 14:32)	(TEST @ 13:29)	(TEST @ 13:16) (TEST @ 13:21)		San Ildefonso Pueblo	LA-5	OTOWI HOUSE		OLD COMMUNITY	PAJARITO PUMP 1	WESTSIDE ARTESIAN ' T 7127/94	HALLADAY HOUSE

SANDIA 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1,12555 NA
1 44494 171.6 BDL <2.892 BDL 1.041 0.146 0.568 0.094 0.374 <0.008 0.374 <0.008 0.094 0.090 0.094 0.090 0.094 <td>1 44484 <</td>	1 44484 <
T. 44494 CTT.6 BDL CA.078 CA.	1 44494 C.176 BDL C.4078 C.4078 BDL C.4078 BDL C.4078 BDL C.4078 BDL C.4078 C.4078
T 3130155 NA - NA - NA - NA - NA	1 1 330195 NA - 1 NA - N
F 517194 NA	t 4137 SALE 44,064 BDL 1,191 0.161 NA
F 517195 NA . NA . NA . NA NA . NA NA . NA NA NA NA NA NA NA . . NA 	F 517735 NA . NA . NA . NA . NA N
T 9128194 <a href="Color: Width: Wid</td><td>T 9121934 <a href=" right-stage-li<="" td="">	
F 4/20/95 NA	F 4/20/95 NA
T 48594 <1716 BDL <0.84 BDL <3.683 BDL 1.039 0.140 0.676 <0.009 0.369 <0.010 BBL 0.077 T 9128/94 NA - - 0.91 BDL <2.758	T 45/594 < 171.6 BDL < 0.084 BDL < 3.683 BDL 1.039 0.140 0.676 < 0.009 0.369 < 0.010 BBL 0.077 T 9128/94 NA - < 0.91 BDL < 2.758 BDL 1.303 0.176 NA <
F 4/20/95 NA	F 4/20/95 NA . NA . NA . NA NA . NA . NA . NA NA NA NA NA NA NA NA NA .
T 9/28/94 NA . <1.22 BDL <3.273 BDL 0.543 0.073 NA NA NA <0.044 BDL <0.018 F 4/10/95 NA . NA . NA . NA . NA NA NA NA NA . NA . NA . 1 T 9/28/94 NA . <1.69 BDL <3.355 BDL 2.835 0.383 NA NA NA C.0.046 BDL 0.018 T 9/12/95 NA . NA . NA . NA . NA	T 9/28/94 NA . < <1.22 BDL <3.273 BDL 0.543 0.073 NA NA<
1 T 9/28/94 NA . < 1.69 BDL < 3.355 BDL 2.835 0.383 NA NA < 0.046 BDL 0.018 1 F 9/12/95 NA . NA . NA . NA NA NA NA NA NA	1 T 9/28/94 NA . <1.69 BDL <3.355 BDL 2.835 0.383 NA NA <0.046 BDL 0.018 1 F 9/12/95 NA . NA . NA . NA NA NA NA NA NA . NA . NA . NA
	'F 9/12/95 NA . NA . NA . NA NA NA NA NA

STATION	Date	H3	2	90Sr (nCl/l)	100	137Cs (nCill.)	<u>.</u>	n ()	,	234U (nCill.) (235U ;	238U 2	238Pu (nCi/L)	7	239/240Pu (nCi/l.)		241Am (nCi/L)	ğ	Gross Alpha	9	Gross Beta	9
SPRING 6A	1 F 9/12/95	NA NA	<u>.</u>					NA AN		NA AN	NA N		¥] .	N A		N A	} ⋅	<0.93	BC BC	1.89	99.0
SPRING 8A	T 4/5/94 1 T 9/29/94 F 4/10/95	<171.6 NA NA	та в , .	<0.77 <1.38 NA	801	<3.117 <1.703 NA	7 80L 3 80L	0.133 0.087 NA	0.018	0.104 NA AN	0.023 NA NA	0.050 NA NA	0.018 <0.031 NA	0.018 BDL	0.081 0.009 NA	0.024	<9.237 <0.037 NA	. BDL	<1.34 <2.35 <2.7	80L 80L 80L	1.94 <2.16 <1.6	0.62 BDL BDL
SPRING 9	1 T 9/29/94	Ą	•	1.59	0.89	<3.001	BDL	9.400	1.271	Ą Z	¥	v ¥	<0.043	BDL	<0.014	BDL	<0.048	BOL	6.10	1.55	4.97	1.06
SPRING 9A	T 4/6/94 † T 9/29/94	<171.6 NA	BDF	<0.73 <1.01	80F	<1.598 <3.764	80r # 80r	0.613	0.083	0.428 NA	0.018 NA	0.212 NA	0.018	0.014 BDL	0.239 <0.023	0.049 ·	<4.047 <0.058	80L 80L	<3.79 <2.33	BDL	<8.77 <2.53	BDL
SPRING 9B	F 4/12/95	Š	•	A A	•	¥	•	Š		AA	A A	A A	¥.		Ā		Ą V		<2.0	BDI.	<4.5	BDL
Los Alamos <u>Canyon</u>																					c,	
BASALT	1 T 7/28/94 F 5/3/95 F 5/25/95	A A A		1.15 NA NA	0.24	<4.087 NA NA	7 BDL	0.466 NA NA	0.063	4 4 4 4 4 4	A A A	A A A	<0.032 <0.46 <0.03	8DL 8DL 8DL	0.018 <0.18 <0.04	0.014 < BDL 0.02	<16.303 NA NA	BOL	65.13 44.1 62.6	80L 80L 80L	5.10 6.9 7.0	1.40 1.4 1.1
LOS ALAMOS	F 5/3/95 F 6/6/95 T 6/6/95	A A A		A A A A		\$ \$ \$ 2 2 2		\$ \$ \$ 2 2 2		4 4 4 2 2 2	A A A	4 4 4 2 2 2	0.11 NA NA	BDL	40.04 NA NA	8DL	A A A	, ,	331 <2.7 <2.8	47 80L 80L	69.9 3.42 4.09	8.5 0.97 0.99
LA-11.2	T 3/10/95	¥	•	<1.4	BOL	X V	•	Ą	٠	0.22	<0.04	0.22	<0.18	BDL	<0.0>	BDL	<0.15	BOL	<3.6	BDL	3.60	0.73
LA-5.19	F 12/16/94 F 7/14/95	320 <190	110 BDL	0.96 NA	0.52	<3.45 NA	. BDL	S S S		0.08 NA	<0.03 • NA	<0.06 NA	<0.11 NA	108	0.06 NA	0.03	0.010 NA	0.05	<4.0 3.2	BDL 1.2	7.2	4. t.
Pajarito Canyon & Tributaries																					S PLANTE	
CHARLIE'S	1 T 7122/94 F 2/24/95	<167.3 NA	. BDL	<0.85 <0.66	BDL	<2.981 NA	BOL	0.241 NA	0.033	NA 0.23	NA <0.03	0.14 A	<0.035	80L 80L	<0.011 0.03	BDL •	<2.693 <0.07	8DL 8DL	<2.92 <3.4	80L 80L	<4.38 4.87	BDL. 0.90
STARMER'S	1 T 7/22/94 F 2/24/95	<167.3 NA	108	<0.79	80L 8DL	<3.180 NA	. BDL	0.264 NA	0.036	NA 0.24	NA <0.02	0.16	<0.021 <0.06	BOL	<0.014 0.04	BDL <	<2.6712 <0.07	BDL BDL	<1.61 <2.6	BDL	3.21 3.49	0.67
HOMESTEAD	F 2/24/95	¥	•	<0.97	BDL	¥ V		Ą		90.0	<0.02	0.09	<0.08	BDL	<0.05	BDL	<0.05	BDL	<2.4	B D1.	3.62	0.87
BULLDOG	F 2/24/95	¥ X	•	<0.68	BDL	X A	•	Ą	•	0.27	<0.04	0.23	<0.09	BDL	0.04	0.02	<0.09	BDL	<2.5	BDL	4.92	0.89
SM-30	F 8/23/94 F 2/2/95	<167.7 <170	80L 80L	A A		Z Z		A A		₹ ₹	A A	₹ ₹	₹ ₹		4 4 2 2		₹ ₹		₹ ₹		₹ X	
SM-30A	1 F 6/29/95	310	140	<0.71	BOL	<3.30	BDL			0.07	<0.03	0.06	<0.06	BDt	<0.03	BOL	<0.06	BDI.	<3.1	BDL	4.64	26.0
TA-18	T 3/21/94 T 3/13/95	₹ Z Z		NA <0.75	BDL	<3.095 NA	. BDL	0.140 NA	0.019	NA 0.05	NA <0.04	NA <0.05 ^	NA <0.016	BDL.	NA <0.05	. 801.	<3.069 <0.10	80L 80L	<0.96	BDL	3.20	0.65
THREEMILE (A)	F 6/23/95	<200	BDL	<0.70	BOL	<3.40	BDL	A A		0.74	0.03	2.55	<0.04	B DL	<0.02	BDL	<0.10	BDL	4.4	1.2	5.2	7

MOHATA		ï		200		437Ce		=		23411	11566	23811 2	238Pii	5	239/240Pu	8	241Am	ღ ∢	Gross. Alpha	ტ ш	Gròss Beta	
	Date	(pci/L)	nuc	(pCi/L)	nuc	(pCi/L)	nuc	(ng/L)	SI	pCi/L) (oun	-	nuc on		ej sun		ay oun	~	nuc
THREEMILE (B)	F 6/23/95 F 8/18/95	350 220	128	<0.67 NA	BDL	<3.99 NA	BDL .	₹ Z Z Z	1 1	0.37 NA	<0.07 NA	0.88 NA	<0.08 NA		<0.03 NA	BDL	<0.12 NA	BDL .	<2.0 NA	BDL .	3.9 NA	Ţ.,
Tensite <u>Canyon</u>																						
TS-1.42	F 10/18/95	830	307	4	1.4	<22	BDL	Ą V	•	<1.5	<1.0	96:0>	2.6	0.87	0.86	0.49	<0.07 E	BDL	10	2.9	45	3.8
Water Canyon & Tributaries																						
BURNING GROUND	T 3/17/95	Ϋ́		<0.68	BOL	Ą		₹ Z	•	0.63	0.03	0.70	<0.14	BOL	<0.08	BDL	<0.10	BDL .	<4.4 E	BDL	3.87	0.97
SWSC	T 3/17/95	Ą		<0.70	BDL	A A		Ą		0.37	<0.03	0.23	<0.10	BDL	<0.03	BDL	<0.13	BDL .	<4.3	BOL	10.1	1.6
MARTIN	F 5/12/95	Υ Y	•	¥ ¥	•	A A		Ϋ́		0.77	<0.02	0.52	Ą	•	¥		Ž Š		<6.7	BDL	3.5	1.0
PETER	F 6/2/95	N A	,	₹ Z	•	A A	,	Ϋ́		Ϋ́	Ą	A A	Ą	,	Ą X	,	¥ ¥	,	4.1	BDL	5.1	1.2
HOLLOW	T 12/9/94 F 3/17/95	ž ž		NA <0.68	BDL	Z Z		1.94 NA	0.27	NA 0.38	NA <0.02	NA 0.21	NA <0.09	BDL	NA <0.03	BDL	NA <0.12	BDL	NA <2.8	· BDL	8.8 6.8	, 0,
FISH LADDER	F 6/2/95	A A	•	Š	•	A A		Š Š		¥	Š	Š Š	Ą		N A	٠	¥ ¥		<3.5	BDL	4.6	£.
WC-6.25	F 8/4/95	099	140	Ā	•	N A		Ą	i	0.10	<0.04	0.14	Ą		ΑA	,	A A		<2.5	BDL	5.87	0.94
Other Springs																						
SACRED	1 T 7/28/94	Š Š	٠	<0.79	BDL	<2.866	BDL	0.854	0.115	A A	Ą	Y Y	<0.032	BDL	<0.015	> TOB	<13.800	PDL •	<1.40	BDI.	3.57	0.71
GC-10.8	T 3/26/95 F 10/16/95	Z Z		<0.74	80L 80L	<1.69	BDL	A A		0.22	<0.03	0.18	<0.1 <0.11	BDL 80L	<0.05 <0.04	BDL	<0.33	BDL 0.12	<4.4	BDL BDL	3.39	1.1
PINE SPRING	F 10/16/95	X A	٠	A A		N A	•	Ā		A A	Ą	¥	Ą		N A		Ą		<0.63	BOL	8.4	1.0
GC-0.36	1 12/27/94	N A		<0.83	BDL	<1.77	BDL	¥	•	0.22	<0.02	0.17	>0.06	BDL	<0.03	BDL	<6.14	BDL	Ą V	•	A A	
WATER CANYON GALLERY	T 5/24/94	<182.9	BDL	X V	•	<3.032	BOL	¥ Y	•	₹ Z	₹ Z	₹ ¥	۲ ک	•	₹ Z		<10.884	BDL	¥ ¥		۲ ک	•
	•																					

* . sample not recieved at contract laboratory at 4 degress celsius NA - Not analyzed or not available

BDL - Below method detection limits UNC - Uncertainties (2 sigma) T: indicates that the sample was acidified prior to filtration or analysis, and represents total metals.

F: indicates that the sample was filtered through a 0.45 micron filter prior to acidification or analysis, and represents dissolved metals.

APPENDIX D

Analytical Results for High-Explosive Compounds

												I
SAMPLE ID:	ER ID#18-01685		Josie Spring		Perkins Spring		Threemile (A)		Threemile (B)		8/18/95	
SAMPLING DATE:	8/1/95		GR#7/G		26/4/20							
HIGH EXPLOSIVE COMPOUND	*RESULT (ug/L)	리	*RESULT (ug/L)	리	RESULT (ug/L)	리	*RESULT (ug/L)	리	*RESULT (ug/L) C	립	*RESULT (ug/L)	리
2-AMINO-4 6-DNT & 2-AMINO-2 6-DNT	BDL	2.0	BDF	2.0	BDL	2.0	BDL	7	BDL	2	N	
OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	BDL	2.0	BDL	5.0	BOL	5.0	BOL	~		7	1,2	_
HEXAHYDRO-1.3.5-TRINITRO-1.3,5-TRIAZINE (RDX)	BDL	2.0	BDL	2.0	BOL	2.0	BDL	7		7	BDL	0.84
1,3,5-TRINITROBENZENE (1,3,5-TNB)	A Z	•	BDL	2.0	BDF	5.0	BDL	7		7	Ϋ́	,
1.3-DINITROBENZENE (1,3-DNB)	AN	,	BOL	2.0	BOL	2.0	BDL	2		7	N A	,
TETRYL	Ą	•	800	2.0	8DF	2.0	BDL	7		2	NA	•
NITROBENZENE (NB)	ΝΑ	,	BDL	2.0	HDF.	2.0	BDL	7		8	Ϋ́	•
2,4,6-TRINITROTOLUENE (2,4,6-TNT)	BDL	5.0	BDL	2.0	BDF	5.0	BDL	7		7	BOL	0.25
2,4-DINITROTOLUENE(2,4-DNT) & 2,6-DINITROTOLUENE(2,6-DNT)	A A	•	BO.	2.0	BDL	2.0	80,	7		~	NA V	• 21
o-NITROTOLUENE (2-NT)	Y Y	•	BD.	5.0	BDL	2.0	BDL	7		7	Ą	- 1
p-NITROTOLUENE (4-NT)	N A		TOB	2.0	BDL	2.0	8DF	7		7	Y S	
m-NITROTOLUENE (3-NT)	NA A	•	TQ8	2.0	BOL.	2.0	BDL	2	BDL	2	Y.	-
	SPRINGScontinued	ntinuec										N 42 ms
												٠.,
SAMPLE ID:	SWSC		MARTIN		PETER		FISH LADDER		VA-0.8		WC-6.25	, .
SAMPLING DATE:	5/12/95		6/12/95		6/2/95		6/2/95		12/9/95		8/4/95	• •
HIGH EXPLOSIVE COMPOUND	'RESULT (ug/L)	리	*RESULT (ug/L)	립	*RESULT (ug/L)	릶	*RESULT (ug/L)	립	*RESULT (ug/L)	립	*RESULT (ug/L)	리
SAMINO-4 FINIT & 2-AMINO-2 G-DNT	2.3	2.0	3.3	2.0	BDL	2.0	BDL	2.0		80	BDL	2.0
OCTAHYDRO. 13 5 7.TETRANITRO. 13 5 7.TETRAZOCINE (HMX)	5.5	2.0	=	2.0	BDL	2.0	7.6	2.0		5	4.1	2.0.
HEXAHYDRO-1 3 5-TRINITRO-1 3 5-TRIAZINE (RDX)	83	2.0	\$	2.0	BDL	2.0	2.7	2.0		130	BDL	2.0
1.3.5.TRINITROBENZENE (1.3.5.TNB)	BDL	2.0	BOL	2.0	BDL	2.0	BDI.	2.0	BDL	22	Ϋ́	1
1.3-DINITROBENZENE (1.3-DNB)	BDL	2.0	BOL	2.0	BDI.	2.0	BOL	2.0		2	Ϋ́	E.
TETRYL	BDL	2.0	BDL	2.0	BDL	5.0	BDL	2.0		 &	Ϋ́	
NITROBENZENE (NB)	BDL	2.0	BDL	2.0	BDI.	5.0	BDL	2.0		88	NA	•
2 4 6-TRINITROTOLUENE (2.4.6-TNT)	BDL.	2.0	BDL	2.0	BDL	2.0	BDL	2.0		8	BDL	2.0
2.4-DINITROTOLUENE(2,4-DNT) & 2,6-DINITROTOLUENE(2,6-DNT)	BDI.	2.0	BDL	5.0	BDL	2.0	BDL	2.0		90	BDL	2.0
o-NITROTOLUENE (2-NT)	BDF	5.0	BDL	2.0	BDL	2.0	BDL	2.0		S S	¥ ¥	31
p-NITROTOLUENE (4-NT)	BDL	2.0	BDL	2.0	BOL	2.0	BDL	2.0	BOL	8	¥ V	;
m-NITROTOLUENE (3-NT)	BDI	2.0	BDI	2.0	BDL	2.0	BDL	2.0		8	NA	-
Modified Method 8330 NA - Not analyzed or not available BDL below method deflection limits DDL Method deflection limit fulf in Method delection limit fulf in that it in that it is not a second to the second limit fulf in that it is not a second limit fulf in the second limit fulf in the second limit fulf in the second limit fulfi												
(A) & (B) - Samples collected at two distinct discharge points												,

SPRINGS

WELL

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APPENDIX E

Analytical Results for Volatile Organic Compounds

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WELLS

SAMPLE ID:	LAOI(A)-1.1		PCO-3	PAJARITO PUMP 2	HALLADAY HOUSE
SAMPLING DATE:	11/1/95	Di	6/20/95	5/24/95 RESULT (ug/L) DL	5/24/95 RESULT (ug/L) DL
ANALYTE	RESULT (ug/L)	DL	RESULT (ug/L) DL	RESULT (ug/L) DL	RESULT (ug/L) DL
ACETONE BENZENE	BDL BDL	10 5	NA - BDL 0.5	NA - BDL 0.5	NA - BDL 0.5
BROMOBENZENE	NA NA	-	NA -	NA -	NA -
BROMOCHLOROMETHANE	NA	-	NA -	NA -	NA -
BROMODICHLOROMETHANE	BDL	5	BDL 0.2	BDL 0.2	BDL 0.2
BROMOFORM	BDL BDL	5 10	BDL 0.5 BDL 1	BDL 0.5 BDL 1	BDL 0.5
BROMOMETHANE 2-BUTANONE (MEK)	BDL	10	BDL 1 NA -	BDL 1 NA -	BDL 1 NA -
n-BUTYLBENZENE	NA NA		NA -	NA -	NA -
sec-BUTYLBENZENE	NA NA	-	NA -	NA -	NA -
tert-BUTYLBENZENE	NA NA	•	NA -	NA -	NA -
tert-BUTYL METHYL ETHER (MTBE) CARBON DISULFIDE	NA BDL	. 5	NA - NA -	NA -	NA - NA -
CARBON TETRACHLORIDE	BDL	5	BDL 0.2	BDL 0.2	BDL 0.2
CHLOROBENZENE	BDL	5	BDL 0.5	BDL 0.5	BDL 0.5
CHLOROETHANE	BDL	10	BDL 0.5	BDL 0.5	BDL 0.5
CHLOROFORM CHLOROMETHANE	BDL BDL	5 10	BDL 0.5 BDL 1	BDL 0.5 BDL 1	BDL 0.5
2-CHLOROTOLUENE	NA NA	-	BDL 1 NA -	BDL 1 NA -	BDL 1 NA -
4-CHLOROTOLUENE	NA.	-	NA -	NA -	NA -
1,2-DIBROMO-3-CHLOROPROPANE	NA	-	NA -	NA -	NA -
DIBROMOCHLOROMETHANE	BDL	5	BDL 0.2	BDL 0.2	BDL 0.2
1,2-DIBROMOETHANE (EDB) DIBROMOMETHANE	NA NA	-	BDL 0.2 NA -	BDL 0.2 NA -	BDL 0.2 NA -
1,2-DICHLOROBENZENE	NA NA		BDL 0.5	BDL 0.5	BDL 0.5
1,3-DICHLOROBENZENE	NA	-	BDL 0.5	BDL 0.5	BDL 0.5
1,4-DICHLOROBENZENE	NA	-	BDL 0.5	BDL 0.5	BDL 0.5
DICHLORODIFLUOROMETHANE 1,1-DICHLOROETHANE	NA BDL	5	NA - BDL 0.2	NA -	NA -
1,2-DICHLOROETHANE (EDC)	BDL	5	BDL 0.2 BDL 0.5	BDL 0.2 BDL 0.5	BDL 0.2 BDL 0.5
1,1-DICHLOROETHENE	BDL	5	BDL 0.2	BDL 0.2	BDL 0.3
CIS-1,2-DICHLOROETHENE	BDL	5	BDL 0.2	BDL 0.2	BDL 0.2
TRANS-1,2-DICHLOROETHENE	BDL	5	BDL 1	BDL 1	BDL 1
1,2-DICHLOROPROPANE CIS-1,3-DICHLOROPROPENE	BDL BDL	5 5	BDL 0.2 BDL 0.2	BDL 0.2 BDL 0.2	BDL 0.2 BDL 0.2
2,2-DICHLOROPROPANE	NA NA	-	NA -	NA -	NA -
2,2-DICHLOROPROPENE	NA	-	NA -	NA -	NA -
TRANS-1,3-DICHLOROPROPENE	BDL	5	BDL 0.2	BDL 0.2	BDL 0.2
ETHYLBENZENE 2-HEXANONE	BDL BDL	5 10	BDL 0.5	BDL 0.5	BDL 0.5
HEXACHLOROBUTADIENE	NA NA	- 10	NA - NA -	NA - NA -	. NA - NA -
ISOPROPYLBENZENE	NA	-	NA -	NA -	NA -
METHYL-I-BUTYL ETHER	NA	-	BDL 2.5	BDL 2.5	BDL 2.5
4-METHYL-2-PENTANONE	BDL	10	NA -	NA -	NA -
1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE	NA NA	- 1	NA - NA -	NA -	NA -
4-ISOPROPYLTOLUENE	NA NA	-	NA -	NA -	NA - NA -
METHYLENE CHLORIDE	BDL	5	BDL 2	BDL 2	BDL 2
NAPHTHALENE DROPM PENZENE	NA NA		NA -	NA -	NA -
PROPYLBENZENE STYRENE	NA BDL	5	NA -	NA -	NA -
1,1,1,2-TETRACHLOROETHANE	BDL	5	NA -	NA - NA -	NA - NA -
1,1,2,2-TETRACHLOROETHANE	NA NA	- 1	BDL 0.2	BDL 0.2	BDL 0.2
TETRACHLOROETHENE	BDL	5	BDL 0.5	BDL 0.5	BDL 0.5
TETRAHYDROFURAN (THF)	NA PD:	_	NA -	NA -	NA -
TOLUENE 1,2,3-TRICHLOROBENZENE	BDL NA	5	BDL 0.5 NA -	BDL 0.5	BDL 0.5
1,2,4-TRICHLOROBENZENE	NA NA	.	NA -	NA -	NA - NA -
1,1,1-TRICHLOROETHANE	BDL	5	BDL 1	BDL 1	BDL 1
1,1,2-TRICHLOROETHANE	BDL	5	BDL 0.2	BDL 0.2	BDL 0.2
TRICHLOROETHENE TRICHLOROFLUOROMETHANE	BDL	5	BDL 0.2	BDL 0.2	BDL 0.2
1,2,3-TRICHLOROPROPANE	NA NA	:	BDL 0.2 NA -	BDL 0.2 NA -	BDL 0.2 NA -
1.1,2-TRICHLORO-2,2,1-TRIFLUOROETHANE	NA NA	-	NA -	NA -	NA -
1,2,4-TRIMETHYLBENZENE	NA NA	-	NA -	NA -	NA -
1,3,5-TRIMETHYLBENZENE	NA PDI	-	NA -	NA -	NA -
VINYL ACETATE VINYL CHLORIDE	BDL BDL	10	NA - BDL 0.5	NA -	NA -
o-XYLENE	NA NA	-	BDL 0.5 NA -	BDL 0.5 NA -	BDL 0.5 NA -
p- & m-XYLENE	NA NA	-	NA -	NA -	NA -
TOTAL XYLENES	BDL	5	BDL 0.5	BDL 0.5	BDL 0.5

SPRINGS

SAMPLE ID:			-3/20	۱	JOSIE	· -	STARMER'S		ā	HOMESTEAD 5/19/95	
SAMPLING DATE:		5/19/95	- 1		5/19/95	- 1	1				DL
ANALYTE		RESULT (ug/L)	DL		RESULT (ug/L)	DL	RESULT (ug/L)	마		RESULT (ug/L)	뜨
ACETONE		NA	-		NA BDL	0.5	NA BDL	0.5		NA BDL	0.5
BENZENE		BDL	0.5		BDL	0.5	NA NA	-		BDL	0.5
BROMOBENZENE		BDL BDL	0.5		BDL	0.5	NA	-		BDL	0.5
BROMOCHLOROMETHANE		BDL	0.5		BDL	0.5	BDL	0.2		BDL	0.5
BROMODICHLOROMETHANE		BDL	0.5		BDL	0.5	BDL	0.5		BDL	0.5
BROMOFORM BROMOMETHANE		BDL	0.5		BDL	0.5	BDL	1		BDL BDL	0.5 5
2-BUTANONE (MEK)		BDL	5		BDL	5	NA NA	- 1		BDL	0.5
n-BUTYLBENZENE		BDL	0.5		BDL	0.5	NA NA			BDL	0.5
sec-BUTYLBENZENE		BDL	0.5		BDL BDL	0.5	NA.		1	BDL	0.5
tert-BUTYLBENZENE		BDL BDL	5		BDL	5	NA.	-	l	BDL	5
tert-BUTYL METHYL ETHER (MTBE)		NA NA	-		NA	-	NA NA	-		NA NA	~ -
CARBON DISULFIDE CARBON TETRACHLORIDE		BDL	0.5		BDL	0.5	BDL	0.2	ı	BDL BDL	0.5 0.5
CHLOROBENZENE		BDL	0.5		BDL	0.5	BDL BDL	0.5	ĺ	BDL	0.5
CHLOROETHANE		BDL	0.5		BDL	0.5	BDL	0.5		BDL	0.5
CHLOROFORM		BDL	0.5		BDL BDL	0.5	BDL	1	l	BDL	0.5
CHLOROMETHANE		BDL BDL	0.5		BDL	0.5	NA NA	-		BDL	0.5
2-CHLOROTOLUENE		BDL	0.5		BDL	0.5	NA	-		BDL	0.5
4-CHLOROTOLUENE		BDL	0.5		BDL	0.5	NA	-	1	BDL	0.5
1,2-DIBROMO-3-CHLOROPROPANE DIBROMOCHLOROMETHANE		BDL	0.5		BDL	0.5	BDL	0.2		BDL BDL	0.5 0.5
1.2-DIBROMOETHANE (EDB)		BDL	0.5		BDL	0.5	BDL	0.2		BDL	0.5
DIBROMOMETHANE		BDL	0.5		BDL	0.5	NA BDL	0.5	1	BDL	0.5
1,2-DICHLOROBENZENE		BDL	0.5		BDL BDL	0.5	BDL	0.5	1	BDL	0.5
1,3-DICHLOROBENZENE		BDL BDL	0.5		BDL	0.5	BDL	0.5	١	BDL	0.5
1,4-DICHLOROBENZENE		BDL	0.5		BDL	0.5	NA	•	1	BDL	0.5
DICHLORODIFLUOROMETHANE		BDL	0.5		BDL	0.5	BDL	0.2	1	BDL	0.5
1,1-DICHLOROETHANE 1,2-DICHLOROETHANE (EDC)		BDL	0.5		BDL	0.5	BDL	0.5	ı	BDL	0.5 0.5
1.1-DICHLOROETHENE		BDL	0.5		BDL	0.5	BDL	0.2		BDL BDL	0.5
CIS-1,2-DICHLOROETHENE		BDL	0.5		BDL	0.5	BDL BDL	0.2		BDL	0.5
TRANS-1,2-DICHLOROETHENE		BDL BDL	0.5 0.5		BDL BDL	0.5	BDL	0.2		BDL	0.5
1,2-DICHLOROPROPANE		BDL	0.5		BDL	0.5	BDL	0.2		BDL	0.5
CIS-1,3-DICHLOROPROPENE	ļ	BDL	0.5		BDL	0.5	NA	-	ļ	BDL	0.5
2,2-DICHLOROPROPANE 2,2-DICHLOROPROPENE	1	BDL .	0.5	Į	BDL	0.5	NA	-	1	BDL	0.5
TRANS-1,3-DICHLOROPROPENE		BDL	0.5	İ	BDL	0.5	BDL	0.2	1	BDL BDL	0.5
ETHYLBENZENE	1	BDL	0.5		BDL	0.5	BDL NA	0.5	1	NA NA	٠.
2-HEXANONE		NA BBI	0.5		NA BDL	0.5	NA NA		1	BDL	0.
HEXACHLOROBUTADIENE		BDL BDL	0.5	1	BDL	0.5	NA NA	_		BDL	0.
ISOPROPYLBENZENE		NA NA	-	1	NA.	-	BDL	2.5		NA NA	-
METHYL-1-BUTYL ETHER 4-METHYL-2-PENTANONE		NA.	-		NA NA	-	NA NA	-		NA	-
1-METHYLNAPHTHALENE	1	NA NA	-		NA	- 1	NA NA	-	1	NA NA	-
2-METHYLNAPHTHALENE	1	NA.		l	NA.		NA NA	-	1	NA BDL	0.
4-ISOPROPYLTOLUENE		BDL	0.5	ĺ	BDL BDL	0.5	NA BDL	2	1	BDL	0.
METHYLENE CHLORIDE		BDL BDL	0.5 0.5	1	BDL	0.5	NA NA	-		BDL	0.
NAPHTHALENE	1	BDL	0.5	1	BDL	0.5	NA NA	-	1	BDL	0.
PROPYLBENZENE STYRENE	1	BDL	0.5	ı	BDL	0.5	NA	-		BDL	0.
1.1.1.2-TETRACHLOROETHANE	1	BDL	0.5		BDL	0.5	NA NA	•	1	BDL	0.
1,1,2,2-TETRACHLOROETHANE	1	BDL	0.5	١	BDL	0.5	BDL	0.2		BDL	0.
TETRACHLOROETHENE	Ì	BDL	0.5	ı	BDL	0.5	BDL	0.5	1	BDL BDL	Ų
TETRAHYDROFURAN (THF)	1	BDL	5	l	BDL	5 0.5	NA BDL	0.5		BDL	ò
TOLUENE	1	BDL BDL	0.5 0.5		BDL BDL	0.5	NA NA	-		BDL	Õ.
1,2,3-TRICHLOROBENZENE	1	BDL	0.5	1	BDL	0.5	NA NA	-		BDL.	0.
1,2,4-TRICHLOROBENZENE 1,1,1-TRICHLOROETHANE	1	BDL	0.5	l	BDL	0.5	BDL	1		BDL	0.
1,1,2-TRICHLOROETHANE		BDL	0.5		BDL	0.5	BDL	0.2		BDL	0.
TRICHLOROETHENE	1	BDL	0.5		BDL	0.5	BDL	0.2		BDL BDL	0.
TRICHLOROFLUOROMETHANE	1	BDL	0.5		BDL	0.5	BDL NA	0.2	١.	BDL	0
1,2,3-TRICHLOROPROPANE		BDL	0.5		BDL NA	0.5	NA NA	-		NA NA	J
1,1,2-TRICHLORO-2,2,1-TRIFLUOROETHANE	1	NA BDL	0.5		BDL	0.5	NA NA	-		BDL	0
1,2,4-TRIMETHYLBENZENE	1	BDL	0.5	1	BDL	0.5	NA.	-		BDL	C
1,3,5-TRIMETHYLBENZENE VINYL ACETATE		NA NA	-		NA	-	NA.	-		NA	_
VINYL CHLORIDE	1	BDL	0.5		BDL	0.5	BDL	0.5	١,	BDL	0
o-XYLENE		BDL	0.5		BDL	0.5	NA NA	-	-	BDL	0
p- & m-XYLENE		BDL	0.5	1	BDL	0.5 1	NA BDL	0.5	۱,	BDL BDL	U
TOTAL XYLENES	1	BDL	1	1	BDL	1	I DUL	U.ü	_		

SAMPLE ID:	ŧ	BULLDOG		SM-30		SM-30A		TA-18	
SAMPLE ID.		5/19/95		2/2/95		6/29/95	1	3/21/94	
ANALYTE		RESULT (ug/L)	DL	RESULT (ug/L) DL	RESULT (ug/L)	DL	RESULT (ug/L)	DL
AMACTIC		itagoat (ug/a/	=						
ACETONE		NA	-	BDL	10	NA SS:		NA SD:	- !
BENZENE		BDL	0.5	BDL	5	BDL	0.5	BDL BDL	0.5
BROMOBENZENE BROMOCHLOROMETHANE		BDL BDL	0.5	NA NA	-	NA NA	- 1	BDL	0.5
BROMODICHLOROMETHANE		BDL	0.5	BDL	5	BDL	0.2	BDL	0.5
BROMOFORM		BDL	0.5	BDL	5	BDL	0.5	BDL	0.5
BROMOMETHANE		BDL	0.5	BDL	10	BDL	1	BDL	0.5
2-BUTANONE (MEK)		BDL	5	BDL	10	NA	-	BDL	5
n-BUTYLBENZENE		BDL	0.5	NA	-	NA NA	-	BDL	0.5
sec-BUTYLBENZENE		BDL	0.5	NA NA	-	NA NA	- }	BDL BDL	0.5 0.5
tert-BUTYLBENZENE tert-BUTYL METHYL ETHER (MTBE)		BDL BDL	0.5	NA NA	-	NA NA	- 1	BDL	5
CARBON DISULFIDE		NA NA	٠. ا	BDL	5	NA NA	- 1	NA NA	-
CARBON TETRACHLORIDE		BDL	0.5	BDL	5	BDL	0.2	BDL	0.5
CHLOROBENZENE		BDL	0.5	BDL	5	BDL	0.5	BDL	0.5
CHLOROETHANE		BDL	0.5	BDL	10	BDL	0.5	BDL	0.5
CHLOROFORM		BDL	0.5	BDL	5	BDL	0.5	BDL	0.5
CHLOROMETHANE		BDL BDL	0.5	BDL	10	BDL	1	BDL BDL	0.5 0.5
2-CHLOROTOLUENE 4-CHLOROTOLUENE		BDL	0.5	NA NA	- 1	NA NA		BDL	0.5
1,2-DIBROMO-3-CHLOROPROPANE		BDL	0.5	NA NA		NA NA	-	BDL	0.5
DIBROMOCHLOROMETHANE		BDL	0.5	BDL	5	BDL	0.2	BDL	0.5
1,2-DIBROMOETHANE (EDB)		BDL	0.5	NA	-	BDL	0.2	BDL	0.5
DIBROMOMETHANE		BDL	0.5	NA NA	-	NA	-	BDL	0.5
1,2-DICHLOROBENZENE		BDL	0.5	NA NA	-	BDL	0.5	BDL	0.5
1,3-DICHLOROBENZENE		BDL	0.5	NA NA	-	BDL	0.5	BDL	0.5
1,4-DICHLOROBENZENE DICHLORODIFLUOROMETHANE		BDL BDL	0.5	NA NA	-	BDL NA	0.5	BDL BDL	0.5 0.5
1,1-DICHLOROETHANE		BDL	0.5	BDL	5	BDL	0.2	BDL	0.5
1,2-DICHLOROETHANE (EDC)		BDL	0.5	BDL	5	BDL	0.5	BDL	0.5
1,1-DICHLOROETHENE		BDL	0.5	BDL	5	BDL	0.2	BDL	0.5
CIS1,2-DICHLOROETHENE		BDL	0.5	BDL	5	BDL	0.2	BDL	0.5
TRANS-1,2-DICHLOROETHENE		BDL	0.5	BDL	5	BDL	1	BDL	0.5
1,2-DICHLOROPROPANE		BDL	0.5	BDL	5	BDL	0.2	BDL	0.5
CIS-1,3-DICHLOROPROPENE 2,2-DICHLOROPROPANE		BDL BDL	0.5	BDL NA	5	BDL NA	0.2	BDL BDL	0.5 0.5
2,2-DICHLOROPROPENE		BDL	0.5	NA NA	- 1	NA NA	- 1	BDL	0.5
TRANS-1,3-DICHLOROPROPENE		BDL	0.5	BDL	5	BDL.	0.2	BDL	0.5
ETHYLBENZENE		BDL	0.5	BDL	5	BDL	0.5	BDL	0.5
2-HEXANONE		NA	-	BDL	10	NA.	-	NA	-
HEXACHLOROBUTADIENE		BDL	0.5	NA NA	-	NA NA	-	BDL	0.5
ISOPROPYLBENZENE		BDL	0.5	NA NA	- 1	NA BDI	2-	BDL	0.5
METHYL-t-BUTYL ETHER 4-METHYL-2-PENTANONE		NA NA		NA BDL	10	BDL NA	2.5	NA NA	-
1-METHYLNAPHTHALENE		NA NA		NA NA	-	NA NA		NA NA	-
2-METHYLNAPHTHALENE		NA	-	NA.	-	NA.		NA NA	
4-ISOPROPYLTOLUENE		BDL	0.5	NA		NA	-	BDL	0.5
METHYLENE CHLORIDE		BDL	0.5	BDL	5	BDL	2	BDL	0.5
NAPHTHALENE PRODY PENZENE		BDL	0.5	NA NA		NA NA	-	BDL	0.5
PROPYLBENZENE STYRENE		BDL BDL	0.5	NA BDI	_	NA NA	-	BDL	0.5
1,1,1,2-TETRACHLOROETHANE		BDL	0.5	BDL	5	NA NA	_ [BDL BDL	0.5 0.5
1,1,2,2-TETRACHLOROETHANE		BDL	0.5	NA NA	١	BDL	0.2	BDL	0.5
TETRACHLOROETHENE		BDL	0.5	BDL	5	BDL	0.5	BDL	0.5
TETRAHYDROFURAN (THF)		BDL	5	NA	1	NA	-	BDL	5
TOLUENE		BDL	0.5	BDL	5	BDL	0.5	BDL	0.5
1,2,3-TRICHLOROBENZENE		BDL	0.5	NA	-	NA NA	-	BDL	0.5
1,2,4-TRICHLOROBENZENE 1,1,1-TRICHLOROETHANE		BDL BDL	0.5	NA BDL	5	NA BDL	- 1	BDL	0.5
1.1.2-TRICHLOROETHANE		BDL	0.5	BDL	5	BDL	0.2	BDL BDL	0.5 0.5
TRICHLOROETHENE		BDL	0.5	BDL	5	BDL	0.2	BDL	0.5
TRICHLOROFLUOROMETHANE		BDL	0.5	NA	-	BDL	0.2	BDL	0.5
1,2,3-TRICHLOROPROPANE		BDL	0.5	NA	-	NA	-	BDL	0.5
1,1,2-TRICHLORO-2,2,1-TRIFLUOROETHANE		NA	-	NA	-	NA NA	-	NA NA	-
1.2,4-TRIMETHYLBENZENE		BDL	0.5	NA	-	NA NA	-	BDL	0.5
1.3,5-TRIMETHYLBENZENE VINYL ACETATE		BDL	0.5	NA BDI	10	NA NA	-	BDL	0.5
VINYL CHLORIDE		NA BDL	0.5	BDL BDL	10 10	NA BDL	0.5	NA BDL	0.5
o-XYLENE		BDL	0.5	NA NA	.	NA NA	0.5	BDL	0.5
p- & m-XYLENE		BDL	0.5	NA NA	-	NA NA	-	BDL	0.5
TOTAL XYLENES		BDL	1	BDL	5	BDL	0.5	BDL	1

SAMPLE ID:	19.1	THREEMILE (A) 6/23/95	10.71	THREEMILE (B) 6/23/95	· · · · · r		rs-1.42 10/18/95		BURNING GROU 3/17/95	DND
SAMPLING DATE: ANALYTE		RESULT (ug/L)	DL	RESULT (ug/L)	DL	- 1	RESULT (ug/L)	DL	RESULT (ug/L)	<u>DL</u>
		NA NA	-	NA	-		BDL	10	BDL	5
ACETONE BENZENE		BDL	0.5	BDL	0.5	1	BDL	5	BDL	1
BROMOBENZENE		NA.	-	NA NA	- [NA	-	BDL BDL	1
BROMOCHLOROMETHANE		NA	-	NA SS:	- 1		NA BDI	5	BDL	1
BROMODICHLOROMETHANE		BDL	0.2	BDL	0.2		BDL BDL	5	BDL	1
BROMOFORM		BDL	0.5	BDL BDL	0.5		BDL	10	BDL	1
BROMOMETHANE		BDL NA	1	NA NA	- 1		BDL	10	BDL	5
2-BUTANONE (MEK)		NA NA	. I	NA NA	- 1	- 1	NA	-	BDL	1
n-BUTYLBENZENE sec-BUTYLBENZENE		NA.	- 1	NA.	-	-	NA	-	BDL	1
tert-BUTYLBENZENE		NA	-	NA	-		NA	-	BDL	1
tert-BUTYL METHYL ETHER (MTBE)		NA	-	NA.	-	ļ	NA DDI	-	BDL NA	5
CARBON DISULFIDE		NA	1	NA DD	- 1	Ì	BDL BDL	5	BDL	1
CARBON TETRACHLORIDE		BDL	0.2	BDL BDL	0.2		BDL	5	BDL	1
CHLOROBENZENE		BDL BDL	0.5	BDL	0.5		BDL.	10	BDL	1
CHLOROETHANE		BDL	0.5	BDL	0.5	- 1	BDL	5	BDL	1
CHLOROFORM		BDL	1	BDL	1		BDL	10	BDL	1
CHLOROMETHANE 2-CHLOROTOLUENE	İ	NA .	-	NA	-		NA	-	BDL	1
4-CHLOROTOLUENE		NA NA	-	NA.	-		NA	-	BDL	1
1,2-DIBROMO-3-CHLOROPROPANE		NA	-	NA SS	-		NA	5	BDL BDL	1
DIBROMOCHLOROMETHANE		BDL	0.2	BDL	0.2	ŀ	BDL	٦	BDL	i
1,2-DIBROMOETHANE (EDB)		BDL	0.2	BDL NA	0.2		NA NA	-	BDL	1
DIBROMOMETHANE		NA BDL	0.5	BDL	0.5		NA.	.	BDL	1
1,2-DICHLOROBENZENE		BDL	0.5	BDL	0.5		NA	-	BDL	1
1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE		BDL	0.5	BDL	0.5		NA	-	BDL	1
DICHLORODIFLUOROMETHANE	i	NA.	-	NA	-		NA	-	BDL	1
1,1-DICHLOROETHANE		BDL	0.2	BDL	0.2		BDL	5	BDL	1
1,2-DICHLOROETHANE (EDC)		BDL	0.5	BDL	0.5		BDL	5	BDL BDL	1
1,1-DICHLOROETHENE		BDL	0.2	BDL BDL	0.2		BDL BDL	5	BDL.	1
CIS-1,2-DICHLOROETHENE		BDL BDL	0.2	BDL	1		BDL	5	BDL	1
TRANS-1,2-DICHLOROETHENE	l	BDL	0.2	BDL	0.2		BDL	5	BDL	1
1,2-DICHLOROPROPANE CIS-1,3-DICHLOROPROPENE		BDL	0.2	BDL	0.2		BDL	5	BDL	1
2.2-DICHLOROPROPANE		NA NA	-	NA NA	-		NA	-	BDL	1
2,2-DICHLOROPROPENE		NA NA	-	NA			NA	<u> </u>	BDL BDL	1
TRANS-1,3-DICHLOROPROPENE	!	BDL	0.2	BDL	0.2		BDL BDL	5	BDL	1
ETHYLBENZENE		BDL	0.5	BDL NA	0.5	- 1	BDL	10	NA NA	
2-HEXANONE	1	NA NA	- 1	NA NA]]		NA NA	-	BDL	1
HEXACHLOROBUTADIENE ISOPROPYLBENZENE		NA.	-	NA NA	-	- 1	NA	-	BDL.	1
METHYL-1-BUTYL ETHER		BDL	2.5	BDL	2.5	- 1	NA	-	NA NA	-
4-METHYL-2-PENTANONE	1	NA NA	-	NA NA	-	- 1	BDL	10	NA NA	-
1-METHYLNAPHTHALENE	Ì	NA.	-	NA NA	-]		NA	-	BDL	1
2-METHYLNAPHTHALENE	1	NA NA	-	NA NA	-	- 1	NA NA	-	BDL BDL	1
4-ISOPROPYLTOLUENE	1	NA BDI	- 1	NA BDL	2	- }	BDL	5	BDL	i
METHYLENE CHLORIDE		BDL NA	2	NA BOL	- 1		NA NA	١	BDL	i
NAPHTHALENE PROPYLBENZENE	1	NA NA	- [NA NA		- 1	NA.	- 1	BDL	1
STYRENE	1	NA.	-	NA	-		BDL	5	BDL	1
1.1.1.2-TETRACHLOROETHANE		NA	-	NA	-		BDL	5	BDL	1
1,1,2,2-TETRACHLOROETHANE	1	BDL	0.2	BDL	0.2	-	NA BDI	_	BDL	1
TETRACHLOROETHENE		BDL	0.5	BDL	0.5		BDL	5	2.8 BDL	1 5
TETRAHYDROFURAN (THF)	1	NA BDI	0.5	NA BDL	0.5	l	NA BDL	5	BDL	1
TOLUENE	1	BDL NA	0.5	NA NA	- 0.5		NA NA	-	BDL	1
1,2,3-TRICHLOROBENZENE 1,2,4-TRICHLOROBENZENE	1	NA NA	-	NA NA	-		NA	-	BDL	1
1.1.1-TRICHLOROETHANE	1	BDL	1	BDL	1		BDL.	5	BDL	1
1,1,2-TRICHLOROETHANE	1	BDL	0.2	BDL	0.2		BDL	5	BDL	1
TRICHLOROETHENE	1	BDL	0.2	BDL	0.2		BDL	5	2.6	1
TRICHLOROFLUOROMETHANE	1	BDL	0.2	BDL NA	0.2		NA NA		BDL BDL	1
1,2,3-TRICHLOROPROPANE	1	NA NA	-	NA NA	-		NA NA	- 1	BDL	1
1,1,2-TRICHLORO-2,2,1-TRIFLUOROETHANE	1	NA NA	-	NA NA	-		NA.	-	BDL	1
1,2,4-TRIMETHYLBENZENE 1,3,5-TRIMETHYLBENZENE		NA NA		NA NA	-		NA.	-	BDL .	1
VINYL ACETATE	1	NA	-	NA NA	-		BDL	10	NA	
VINYL CHLORIDE		BDL	0.5	BDL.	0.5		BDL	10	BDL	1
o-XYLENE	1	NA NA	•	NA NA	-		NA NA		BDL BDL	1
p- & m-XYLENE TOTAL XYLENES	1	NA BDL	0.5	NA BDL	0.5		BDL	5	NA NA	
		i rsca.	U.D	I BUL	0.0				, , , , ,	

SAMPLE ID:	l if	BURNING GROU	IND	SWSC		swsc		MARTIN	
SAMPLING DATE:	1	5/12/95		3/17/95		5/12/95		5/12/95	
ANALYTE		RESULT (ug/L)	DL	RESULT (ug/L)	DL	RESULT (ug/L)	DL	RESULT (ug/L)	DL
ACETONE		NΛ	_	200					
BENZENE		NA BDL	0.5	BDL BDL	5	NA BDL	0.5	NA BDL	_ 0.5
BROMOBENZENE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5 0.5
BROMOCHLOROMETHANE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
BROMODICHLOROMETHANE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
BROMOFORM BROMOMETHANE	l	BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
2-BUTANONE (MEK)		BDL BDL	0.5 5	BDL BDL	1 5	BDL	0.5	BDL	0.5
n-BUTYLBENZENE		BDL	0.5	BDL	1	BDL BDL	5 0.5	BDL BDL	5 0.5
sec-BUTYLBENZENE		BDL	0.5	BDL	i	BDL	0.5	BDL	0.5
tert-BUTYLBENZENE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
tert-BUTYL METHYL ETHER (MTBE) CARBON DISULFIDE	- 1	BDL	5	BDL	5	BDL	5	BDL	5
CARBON TETRACHLORIDE	- 1	NA BDL	0.5	NA BDL	:	NA DD		NA NA	-
CHLOROBENZENE	- 1	BDL	0.5	BDL	1	BDL BDL	0.5	BDL BDL	0.5 0.5
CHLOROETHANE		BDL	0.5	BDL	il	BDL	0.5	BDL	0.5
CHLOROFORM	- 1	BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
CHLOROMETHANE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
2-CHLOROTOLUENE 4-CHLOROTOLUENE		BDL BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
1,2-DIBROMO-3-CHLOROPROPANE		BDL	0.5	BDL BDL	1	BDL BDL	0.5	BDL BDL	0.5
DIBROMOCHLOROMETHANE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5 0.5
1,2-DIBROMOETHANE (EDB)	1	BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
DIBROMOMETHANE	1	BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE	İ	BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
1,4-DICHLOROBENZENE		BDL BDL	0.5	BDL BDL	1	BDL	0.5	BDL	0.5
DICHLORODIFLUOROMETHANE	1	BDL	0.5	BDL	1	BDL BDL	0.5	BDL BDL	0.5 0.5
1,1-DICHLOROETHANE		BDL	0.5	BDL	i l	BDL	0.5	BDL	0.5
1,2-DICHLOROETHANE (EDC)	- 1	BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
1,1-DICHLOROETHENE CIS-1,2-DICHLOROETHENE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
TRANS-1,2-DICHLOROETHENE	ļ	BDL BDL	0.5	BDL BDL	1	BDL	0.5	BDL	0.5
1,2-DICHLOROPROPANE	- 1	BDL	0.5	BDL	1	BDL BDL	0.5 0.5	BDL BDL	0.5
CIS-1,3-DICHLOROPROPENE	- 1	BDL	0.5	BDL	i	BDL	0.5	BDL	0.5 0.5
2,2-DICHLOROPROPANE	- 1	BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
1,1-DICHLOROPROPENE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
TRANS-1,3-DICHLOROPROPENE ETHYLBENZENE	- 1	BDL BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
2-HEXANONE		NA NA	0.5	BDL NA	1	BDL NA	0.5	BDL	0.5
HEXACHLOROBUTADIENE		BDL	0.5	BDL	1	BDL	0.5	NA BDL	0.5
ISOPROPYLBENZENE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
METHYL-1-BUTYL ETHER		NA	-	NA NA	-	NA NA	-	NA NA	-
4-METHYL-2-PENTANONE 1-METHYLNAPHTHALENE		NA NA	-	NA SS:	- 1	NA NA	-	NA	-
2-METHYLNAPHTHALENE		NA NA		BDL BDL	1	NA NA	-	NA NA	-
4-ISOPROPYLTOLUENE		BDL	0.5	BDL	1	BDL	0.5	NA BDL	0.5
METHYLENE CHLORIDE	- 1	BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
NAPHTHALENE DRODY BENZENE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
PROPYLBENZENE STYRENE	1	BDL BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
1,1,1,2-TETRACHLOROETHANE		BDL BDL	0.5	BDL BDL	1	BDL BDL	0.5 0.5	BDL BDL	0.5 0.5
1.1,2,2-TETRACHLOROETHANE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
TETRACHLOROETHENE		3.2	0.5	2.3	1	2.2	0.5	BDL	0.5
TETRAHYDROFURAN (THF)		BDL	5	BDL	5	BDL	5	BDL	5
TOLUENE 1,2,3-TRICHLOROBENZENE		BDL	0.5	BDL	1	BDL	0.5	BDL	0.5
1,2,4-TRICHLOROBENZENE		BDL BDL	0.5	BDL BDL	1	BDL	0.5	BDL	0.5
1.1.1-TRICHLOROETHANE		BDL	0.5	BDL	1	BDL BDL	0.5	BDL BDL	0.5 0.5
1,1,2-TRICHLOROETHANE			0.5	BDL	i	BDL	0.5	BDL	0.5
TRICHLOROETHENE		3.4	0.5	2.2	1	2.4	0.5	0.9	0.5
TRICHLOROFLUOROMETHANE			0.5	BDL	1	BDL	0.5	BDL	0.5
1,2,3-TRICHLOROPROPANE 1,1,2-TRICHLORO-2,2,1-TRIFLUOROETHANE		BDL N A	0.5	BDL	1	BDL	0.5	BDL	0.5
1,2,4-TRIMETHYLBENZENE			0.5	BDL BDL	1	NA BDL	0.5	NA BDL	0.5
1,3,5-TRIMETHYLBENZENE			0.5	BDL	1	BDL .	0.5	BDL	0.5
VINYL ACETATE		NA	-	NA NA	-	NA NA	-	NA.	-
VINYL CHLORIDE o-XYLENE			0.5	BDL	1	BDL	0.5	BDL	0.5
p- & m-XYLENE			0.5	BDL	1	BDL	0.5	BDL	0.5
TOTAL XYLENES		BDL	1	BDL NA	1	BDL BDL	0.5	BDL BDL	0.5
	ــــ			L				BUL	

DL - Method detection limit BDL- Below method detection limit NA - Not analyzed

SAMPLE ID:	PETER		HOLLOW		FISH LADE	ER
SAMPLING DATE:	6/2/95		3/17/95		6/2/95	
ANALYTE	RESULT (ug/L) DL	RESULT (ug/L)	만	RESULT (L	ig/L) DL
ACETONE	NA.	-	BDL	5	NA SSI	
BENZENE	BDL NA	0.5	BDL BDL	1 1	BDL NA	0.5
BROMOBENZENE	BDL	0.2	BDL	1	BDL	0.2
BROMOCHLOROMETHANE BROMODICHLOROMETHANE	NA.	-	BDL	1	NA.	-
BROMOFORM	BDL	0.5	BDL	1	BDL	0.5
BROMOMETHANE	BDL	1	BDL	1	BDL	1
2-BUTANONE (MEK)	NA.	-	BDL	5	NA	-
n-BUTYLBENZENE	NA	-	BDL	1	NA NA	-
sec-BUTYLBENZENE	NA.	-	BDL BDL	1	NA NA	-
tert-BUTYLBENZENE tert-BUTYL METHYL ETHER (MTBE)	NA NA	- 1	BDL	5	NA.	-
CARBON DISULFIDE	NA.	-	NA NA	-	NA	-
CARBON TETRACHLORIDE	BDL	0.2	BDL	1	BDL	0.2
CHLOROBENZENE	BDL	0.5	BDL	1	BDL	0.5
CHLOROETHANE	BDL	0.5	BDL	1	BDL	0.5
CHLOROFORM	BDL	0.5	BDL	1	BDL	0.5 1
CHLOROMETHANE	BDL NA	1	BDL BDL	1	NA NA	-
2-CHLOROTOLUENE	NA NA		BDL	1	NA NA	-
4-CHLOROTOLUENE 1,2-DIBROMO-3-CHLOROPROPANE	NA NA	- 1	BDL	1	NA.	-
DIBROMOCHLOROMETHANE	BDL	0.2	BDL.	1	BDL	0.2
1.2-DIBROMOETHANE (EDB)	BDL	0.2	BDL	1	BDL	0.2
DIBROMOMETHANE	NA.		BDL	1	NA DD	
1,2-DICHLOROBENZENE	BDL	0.5	BDL	1	BDL BDL	0.5 0.5
1,3-DICHLOROBENZENE	BDL BDL	0.5 0.5	BDL BDL	1	BDL	0.5
1,4-DICHLOROBENZENE DICHLORODIFLUOROMETHANE	NA NA	0.5	BDL	il	NA.	-
1.1-DICHLOROETHANE	BDL	0.2	BDL	1	BDL	0.2
1,2-DICHLOROETHANE (EDC)	BDL	0.5	BDL	1	BDL	0.5
1.1-DICHLOROETHENE	BDL	0.2	BDL	1	BDL	0.2
CIS-1,2-DICHLOROETHENE	21	0.2	BDL	1	BDL BDL	0.2 1
TRANS-1,2-DICHLOROETHENE	BDL BDL	1 0.2	BDL BDL	1	BDL	0.2
1,2-DICHLOROPROPANE	BDL		BDL	1	BDL	0.2
CIS1,3-DICHLOROPROPENE 2,2-DICHLOROPROPANE	NA.	-	BDL	1	NA.	
1.1-DICHLOROPROPENE	NA.	-	BDL	1	NA.	-
TRANS-1,3-DICHLOROPROPENE	BDL		BDL	1	BDL	0.2
ETHYLBENZENE	BDL	0.5	BDL	1	BDL	0.5
2-HEXANONE	NA NA	-	NA BD	1	NA NA	-
HEXACHLOROBUTADIENE	NA NA	-	BDL BDL	1	NA NA	
ISOPROPYLBENZENE	NA NA	-	NA NA		NA.	-
METHYL-1-BUTYL ETHER 4-METHYL-2-PENTANONE	l NA		NA NA	-	NA.	-
1-METHYLNAPHTHALENE	NA NA	-	BDL	1	NA.	-
2-METHYLNAPHTHALENE	NA NA	-	BDL	1	NA NA	-
4-ISOPROPYLTOLUENE	NA	-	BDL	1	NA NA	-
METHYLENE CHLORIDE	BDL	. 2	BDL	1	BDL	2
NAPHTHALENE	NA NA	-	BDL BDL	1 1	NA NA	-
PROPYLBENZENE	NA NA	_	BDL	i	NA NA	-
STYRENE 1,1,1,2-TETRACHLOROETHANE	NA NA	_	BDL	1	NA.	-
1,1,2,2-TETRACHLOROETHANE	BDI	0.2	BDL	1	BDL	0.2
TETRACHLOROETHENE	15	0.5	BDL	1	BDL	0.5
TETRAHYDROFURAN (THF)	NA NA	-	BDL	5	NA DD:	-
TOLUENE	BDI		BDL	1	BDL NA	0.5
1,2,3-TRICHLOROBENZENE	NA NA		BDL BDL	1	NA NA	-
1,2,4-TRICHLOROBENZENE	NA BDI		BDL	1	BDL	
1,1,1-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE	BDI		BDL	i	BDL	
TRICHLOROETHENE	3.1		BDL	1	0.3	
TRICHLOROFLUOROMETHANE	BDI	0.2	BDL	1	BDL	
1,2,3-TRICHLOROPROPANE	NA.		BDL	1	NA NA	
1,1,2-TRICHLORO-2,2,1-TRIFLUOROETHANE	NA NA		BDL	1	NA NA	
1,2,4-TRIMETHYLBENZENE	NA NA		BDL BDL	1 1	NA NA	
1,3,5-TRIMETHYLBENZENE	NA NA		NA NA		I NA	
VINYL ACETATE VINYL CHLORIDE	BD		BDL	1	BDI	
o-XYLENE	NA NA		BDL	1	NA NA	-
p- & m-XYLENE	N/A		BDL	1	NA BDI	
10- G HEAT CEIVE	l BD	_ 0.5	l NA			

APPENDIX F

Analytical Results for Semi-volatile Organic Compounds, Polychlorinated Biphenyls, etc.,

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WELLS

LAOI(A)-1.1 11/1/95 SAMPLE ID: SAMPLING DATE:

SAMPLING DATE:	11/1/35				
ANALYTE	RESULT (ug/L)	DL	ANALYTE-continued	RESULT (ug/L)	DL
1,2,4,-TRICHLOROBENZENE	ND	20	BENZO(B)FLUORANTHENE	ND	20
1,2,4,5-TETRACHLOROBENZENE	NA	-	BENZO(G,H,I)PERYLENE	ND	20
1,2-DICHLOROBENZENE	ND	20	BENZO(K)FLUORANTHENE	ND	20
1,2-DIPHENYLHYDRAZINE	NA NA				
		-	BENZOIC ACID	ND	100
1,3,-DICHLOROBENZENE	ND	20	BENZYL ALCOHOL	ND	20
1,4,-DICHLOROBENZENE	ND	20	BIS (2-CHLOROETHOXY) METHANE	ND	20
1-CHLORONAPTHALENE	NA	-	BIS (2-CHLOROETHYL) ETHER	ND	20
1-NAPTHYLAMINE	NA	-	BIS (2-CHLOROISOPROPY) ETHER	ND	20
2,2,3,3,4,5,6,6-OCTACHLOROBIPHENYL	NA	-	BIS(2-ETHYLHEXYL)PHTHALATE	ND	20
2,2,3,3,4,4,6-HEPTACHLOROBIPHENYL	NA	_	BUTYL BENZYL PHTHALATE	ND	20
2,2,4,4,5,6-HEXACHLOROBIPHENYL	NA	-	BUTACHLOR	NA NA	-
2,2,3,4,6-PENTACHLOROBIPHENYL	NA	_	CARBAZOLE	ND	20
2,2,4,4-TETRACHLOROBIPHENYL	NA NA	-			
		-	CHLORDANE (TOTAL)	NA	-
2,3,4,6-TETRACHLOROPHENOL	NA	-	CHRYSENE	ND	20
2,4,5-TRICHLOROBIPHENYL	NA	-	DI(2 ETHYLHEXYL) ADIPATE	NA	-
2,4,5-TRICHLOROPHENOL	ND	100	DI(2 ETHYLHEXYL) PHTHALATE	NA	-
2,4,6-TRICHLOROPHENOL	ND	20	DI-N-BUTYL PHTHALATE	ND	20
2,3-DICHLOROBIPHENYL	NA	_	DI-N-OCTYL PHTHALATE	ND	20
2,4-DICHLOROPHENOL	ND	20	DIBENZO(A,H)ANTHRACENE	ND	20
2,4-DIMETHYLPHENOL	ND	20	DIBENZO(A,J)ACRIDINE	NA NA	-
2,4-DINITROPHENOL	ND	100			
·			DIBENZOFURAN	ND	20
2,4-DINITROTOLUENE	ND	20	DIELDRIN	NA	•
2,6-DICHLOROPHENOL	NA	-	DIETHYL PHTHALATE	ND	20
2,6-DINITROTOLUENE	ND	20	DIMETHYL PHTHALATE	ND	20
2-CHLORONAPHTHALENE	ND	20	DIPHENYLAMINE	NA	-
2-CHLOROBIPHENYL	NA	-	ENDRIN	NA	-
2-CHLOROPHENOL	ND	20	FLUORANTHENE	ND	20
2-METHYLNAPHTHALENE	ND	20	FLUORENE	ND	20
2-METHYLPHENOL	ND	20	GAMMA-CHLORDANE	NA NA	
2-NAPTHYLAMINE	NA NA	-			-
			HEPTACHLOR	NA	-
2-NITROANILINE	ND	100	HEPTACHLOR EPOXIDE	NA	-
2-NITROPHENOL	ND	20	HEXACHLOROBENZENE	ND	20
2-PICOLINE	NA	-	HEXACHLOROBUTADIENE	ND	20
3,3-DICHOLOROBENZIDINE	ND	100	HEXACHLOROCYCLOPENTADIENE	ND	20
3-METHYLCHOLANTHRENE	NA	-	HEXACHLOROETHANE	ND	20
3-NITROANILINE	ND	100	INDENO(1,2,3-CD)PYRENE	ND	20
4,6-DINITRO-2-METHYLPHENOL	ND	100	ISOPHORONE	ND	20
4-AMINOBIPHENYL	NA NA	-			
			LINDANE	NA NA	-
4-BROMOPHENYL PHENYL ETHER	ND	20	N-NITROSO-DI-N-PROPYLAMINE	ND	20
4-CHLORO-3-METHYLPHENOL	ND	20	N-NITROSODI-N-BUTYLAMINE	NA	-
4-CHLOROANILINE	ND	50	N-NITROSODIMETHYLAMINE	NA	-
4-CHLOROPHENYL PHENYL ETHER	ND	20	N-NITROSODIMETHYLAMINE	ND	20
4-METHYLPHENOL	ND	20	N-NITROSODIPHENYLAMINE	ND	20
4-NITROANILINE	ND	100	N-NITROSOPIPERIDINE	NA	-
4-NITROPHENOL	ND	100	NAPHTHALENE	ND	20
7,12-DIMETHYLBENZO(A)ANTHRACENE	NA	-	NITROBENZENE	ND	20
A-,A-DIMETHYLPENETHYLAMINE	NA NA	-			
			METOLACHLOR	NA	-
ACENAPHTHENE	ND	20	METHOXYCHLOR	NA	-
ACENAPHTHYLENE	ND	20	METRIBUZIN	NA	-
ACETOPHENONE	NA	-	P-DIMETHYLAMINOAZOBENZENE	NA	-
ALACHLOR	NA	-	PENTACHLOROBENZENE	NA	-
ALDRINE	NA	-	PENTACHLORONITROBENZENE	NA	-
ALPHA-CHLORDANE	NA	-	PENTACHLOROPHENOL	ND	100
ANILINE	ND	50	PHENACETIN	NA	-
ANTHRACENE	ND	20	PHENANTHRENE	ND	20
AROCLOR 1016	ND	0.5	PHENOL		
				ND	20
AROCLOR 1221	ND	0.5	PRONAMIDE	NA	-
AROCLOR 1232	ND	9.5	PROPACHLOR	NA	-
AROCLOR 1242	ND	0.5	PYRENE	ND	20
AROCLOR 1248	ND	0.5	PYRIDINE	ND	20
AROCLOR 1254	ND	0.5	SIMAZINE	NA	_
AROCLOR 1260	ND	0.5	TOXAPHENE MIXTURE	NA	_
ATRAZINE	NA	-	TRANS NONACHLOR	NA NA	_
AZOBENZENE	ND	20		14/5	-
BENZIDINE	ND	100			
BENZO(A)ANTHRACENE	ND	20			
BENZO(A)PYRENE	ND	20			

DL - Method detection limit

B - Indicates compound was detected in lab blank as well as in the sample
J - Indicates an estimated value for tentatively identified components, or compounds detected and identified but present at a concentration less than the practical quantitation limit

SPRINGS

SAMPLE ID: SM-30A 6/29/95 SAMPLING DATE:

ANALYTE	RESULT (ug/L)	DL	ANALYTE-continued	RESULT (ug/L)	DL
1,2,4,-TRICHLOROBENZENE	ND	10	BENZO(B)FLUORANTHENE	ND	10
1,2,4,5-TETRACHLOROBENZENE	ND	10	BENZO(G,H,I)PERYLENE	ND	10
1,2-DICHLOROBENZENE	ND	10	BENZO(K)FLUORANTHENE	ND	10
1,2-DIPHENYLHYDRAZINE	ND	10	BENZOIC ACID	ND	50
1,3,-DICHLOROBENZENE	ND	10	BENZYL ALCOHOL	ND	10
1,4,-DICHLOROBENZENE	ND	10	BIS (2-CHLOROETHOXY) METHANE	ND	10
1-CHLORONAPTHALENE	ND	10	BIS (2-CHLOROETHYL) ETHER	ND	10
1-NAPTHYLAMINE	ND	10	BIS (2-CHLOROISOPROPY) ETHER	ND	10
2,2,3,3,4,5,6,6-OCTACHLOROBIPHENYL	NA	-	BIS(2-ETHYLHEXYL)PHTHALATE	ND	10
2,2,3,3,4,4,6-HEPTACHLOROBIPHENYL	NA	-	BUTYL BENZYL PHTHALATE	ND	10
2,2,4,4,5,6-HEXACHLOROBIPHENYL	NA	-	BUTACHLOR	NA	-
2,2,3,4,6-PENTACHLOROBIPHENYL	NA	-	CARBAZOLE	ND	NA
2,2,4,4-TETRACHLOROBIPHENYL	NA	-	CHLORDANE (TOTAL)	NA	-
2,3,4,6-TETRACHLOROPHENOL	ND	10	CHRYSENE	ND NA	10 -
2,4,5-TRICHLOROBIPHENYL	NA	-	DI(2 ETHYLHEXYL) ADIPATE	NA NA	-
2,4,5-TRICHLOROPHENOL	ND	50	DI(2 ETHYLHEXYL) PHTHALATE	ND ND	10
2,4,6-TRICHLOROPHENOL	ND	10	DI-N-BUTYL PHTHALATE	ND	10
2,3-DICHLOROBIPHENYL	NA ND	-	DI-N-OCTYL PHTHALATE	ND	10
2,4-DICHLOROPHENOL	ND	10	DIBENZO(A, H)ANTHRACENE	ND	10
2,4-DIMETHYLPHENOL	ND ND	10 50	DIBENZO(A,J)ACRIDINE DIBENZOFURAN	ND	10
2,4-DINITROPHENOL	ND	10	DIELDRIN	NA NA	-
2,4-DINITROTOLUENE	ND	10	DIETHYL PHTHALATE	ND	10
2,6-DICHLOROPHENOL	ND	10	DIMETHYL PHTHALATE	ND	10
2,6-DINITROTOLUENE 2-CHLORONAPHTHALENE	ND	10	DIPHENYLAMINE	ND	10
2-CHLOROBIPHENYL	NA NA	-	ENDRIN	NA	-
2-CHLOROPHENOL	ND	10	FLUORANTHENE	ND	10
2-METHYLNAPHTHALENE	ND	10	FLUORENE	ND	10
2-METHYLPHENOL	ND	10	GAMMA-CHLORDANE	NA	-
2-NAPTHYLAMINE	ND	10	HEPTACHLOR	NA	-
2-NITROANILINE	ND	10	HEPTACHLOR EPOXIDE	NA	-
2-NITROPHENOL	ND	10	HEXACHLOROBENZENE	ND	10
2-PICOLINE	ND	10	HEXACHLOROBUTADIENE	ND	10
3,3-DICHOLOROBENZIDINE	ND	50	HEXACHLOROCYCLOPENTADIENE	ND	10
3-METHYLCHOLANTHRENE	ND	10	HEXACHLOROETHANE	ND	10
3-NITROANILINE	ND	10	INDENO(1,2,3-CD)PYRENE	ND	10
4,6-DINITRO-2-METHYLPHENOL	ND	50	ISOPHORONE	ND	10
4-AMINOBIPHENYL	ND	10	LINDANE	NA	-
4-BROMOPHENYL PHENYL ETHER	ND	10	N-NITROSO-DI-N-PROPYLAMINE	ND	10
4-CHLORO-3-METHYLPHENOL	ND	10	N-NITROSODI-N-BUTYLAMINE	ND	10 10
4-CHLOROANILINE	ND	10	N-NITROSODIMETHYLAMINE	ND	10
4-CHLOROPHENYL PHENYL ETHER	ND	10	N-NITROSODIMETHYLAMINE	ND ND	10
4-METHYLPHENOL	ND	10	N-NITROSODIPHENYLAMINE	ND ND	10
4-NITROANILINE	ND	10	N-NITROSOPIPERIDINE	ND	10
4-NITROPHENOL	ND	50	NAPHTHALENE	ND	10
7,12-DIMETHYLBENZO(A)ANTHRACENE	ND ND	10 10	NITROBENZENE METOLACHLOR	NA NA	-
A-,A-DIMETHYLPENETHYLAMINE	ND ND	10	METHOXYCHLOR	NA NA	-
ACENAPHTHENE	ND	10	METRIBUZIN	NA.	-
ACETORHENONE	ND	10	P-DIMETHYLAMINOAZOBENZENE	ND	10
ACETOPHENONE ALACHLOR	NA NA	-	PENTACHLOROBENZENE	ND	10
ALDRINE	NA.	-	PENTACHLORONITROBENZENE	ND	10
ALPHA-CHLORDANE	NA	-	PENTACHLOROPHENOL	ND	50
ANILINE	ND	10	PHENACETIN	ND	10
ANTHRACENE	ND	10	PHENANTHRENE	ND	10
AROCLOR 1016	NA	_	PHENOL	ND	10
AROCLOR 1221	NA	-	PRONAMIDE	ND	10
AROCLOR 1232	NA	-	PROPACHLOR	NA	-
AROCLOR 1242	NA	-	PYRENE	ND	10
AROCLOR 1248	NA	-	PYRIDINE	ND	NA
AROCLOR 1254	NA	-	SIMAZINE	NA	-
AROCLOR 1260	NA	-	TOXAPHENE MIXTURE	NA	-
ATRAZINE	NA	-	TRANS NONACHLOR	NA	-
AZOBENZENE	ND	NA			
BENZIDINE	ND	10			
BENZO(A)ANTHRACENE	ND	10			
BENZO(A)PYRENE	ND	10			

DL - Method detection limit

B - Indicates compound was detected in lab blank as well as in the sample

J - Indicates an estimated value for tentativety identified components, or compounds detected and identified but present at a concentration less than the practical quantitation limit

SAMPLE ID: TA-18 SAMPLING DATE: 3/21/94

ANALYTE	RESULT (ug/L)	DL	ANALYTEcontinued	RESULT (ug/L)	DL
1,2,4,-TRICHLOROBENZENE	ND	1	PENZO/PIELLODANTURAS		
1,2,4,5-TETRACHLOROBENZENE	NA NA	-	BENZO(B)FLUORANTHENE	ND	2
1,2-DICHLOROBENZENE	ND	1	BENZO(G,H,I)PERYLENE	ND	2
1,2-DIPHENYLHYDRAZINE	NA NA		BENZO(K)FLUORANTHENE	ND .	2
1,3,-DICHLOROBENZENE	ND	1	BENZOIC ACID BENZYL ALCOHOL	ND	5
1,4,-DICHLOROBENZENE	ND	1		ND	1
1-CHLORONAPTHALENE	NA	Ė	BIS (2-CHLOROETHOXY) METHANE BIS (2-CHLOROETHYL) ETHER	ND	1
1-NAPTHYLAMINE	NA	-	BIS (2-CHLOROISOPROPY) ETHER	ND	1
2,2,3,3,4,5,6,6-OCTACHLOROBIPHENYL	NA	-	BIS(2-ETHYLHEXYL)PHTHALATE	ND ND	1
2,2,3,3,4,4,6-HEPTACHLOROBIPHENYL	NA	-	BUTYL BENZYL PHTHALATE	ND	1
2,2,4,4,5,6-HEXACHLOROBIPHENYL	NA	-	BUTACHLOR	NA NA	1
2,2,3,4,6-PENTACHLOROBIPHENYL	NA	_	CARBAZOLE	NA NA	-
2,2,4,4-TETRACHLOROBIPHENYL	NA	-	CHLORDANE (TOTAL)	NA NA	-
2,3,4,6-TETRACHLOROPHENOL	NA	-	CHRYSENE	ND	1
2,4,5-TRICHLOROBIPHENYL	NA	-	DI(2 ETHYLHEXYL) ADIPATE	NA NA	-
2,4,5-TRICHLOROPHENOL	ND	1	DI(2 ETHYLHEXYL) PHTHALATE	NA NA	_
2,4,6-TRICHLOROPHENOL	ND	1	DI-N-BUTYL PHTHALATE	ND	1
2,3-DICHLOROBIPHENYL	NA	-	DI-N-OCTYL PHTHALATE	ND	1
2,4-DICHLOROPHENOL	ND	1	DIBENZO(A,H)ANTHRACENE	ND	1
2,4-DIMETHYLPHENOL	ND	1	DIBENZO(A,J)ACRIDINE	NA	_
2,4-DINITROPHENOL	ND	10	DIBENZOFURAN	ND	1
2,4-DINITROTOLUENE	ND	1	DIELDRIN	NA	_
2,6-DICHLOROPHENOL	NA	-	DIETHYL PHTHALATE	NA	-
2,6-DINITROTOLUENE	ND	1	DIMETHYL PHTHALATE	ND	1
2-CHLORONAPHTHALENE	ND	1	DIPHENYLAMINE	NA	-
2-CHLOROBIPHENYL 2-CHLOROPHENOL	NA	-	ENDRIN	NA	-
2-METHYLNAPHTHALENE	ND	1	FLUORANTHENE	ND	1
2-METHYLPHENOL	ND	1	FLUORENE	ND	1
2-NAPTHYLAMINE	ND	1	GAMMA-CHLORDANE	NA	-
2-NITROANILINE	NA ND	-	HEPTACHLOR	NA	-
2-NITROPHENOL	ND	1	HEPTACHLOR EPOXIDE	NA	-
2-PICOLINE	NA NA	1	HEXACHLOROBENZENE	ND	1
3,3-DICHOLOROBENZIDINE	ND	1	HEXACHLOROBUTADIENE	ND	5
3-METHYLCHOLANTHRENE	NA NA	-	HEXACHLOROCYCLOPENTADIENE	ND	5
3-NITROANILINE	ND	10	HEXACHLOROETHANE	ND	1
4,6-DINITRO-2-METHYLPHENOL	ND	3	INDENO(1,2,3-CD)PYRENE ISOPHORONE	ND	1
4-AMINOBIPHENYL	NA	-	LINDANE	ND	1
4-BROMOPHENYL PHENYL ETHER	ND	1	N-NITROSO-DI-N-PROPYLAMINE	NA NB	-
4-CHLORO-3-METHYLPHENOL	ND	1	N-NITROSODI-N-BUTYLAMINE	ND	1
4-CHLOROANILINE	ND	2	N-NITROSODIMETHYLAMINE	NA NA	-
4-CHLOROPHENYL PHENYL ETHER	ND	1	N-NITROSODIMETHYLAMINE		-
4-METHYLPHENOL	ND	1	N-NITROSODIPHENYLAMINE	NA ND	4
4-NITROANILINE	ND	5	N-NITROSOPIPERIDINE	NA NA	1
4-NITROPHENOL	ND	10	NAPHTHALENE	ND	1
7,12-DIMETHYLBENZO(A)ANTHRACENE	NA	-	NITROBENZENE	ND	1
A-,A-DIMETHYLPENETHYLAMINE	NA	-	METOLACHLOR	NA NA	_
ACENAPHTHENE	ND	1	METHOXYCHLOR	NA NA	-
ACENAPHTHYLENE	ND	1	METRIBUZIN	NA NA	_
ACETOPHENONE	NA	-	P-DIMETHYLAMINOAZOBENZENE	ND	1
ALACHLOR	NA	-	PENTACHLOROBENZENE	NA	_
ALDRINE	NA	+	PENTACHLORONITROBENZENE	NA	-
ALPHA-CHLORDANE	NA	-	PENTACHLOROPHENOL	ND	3
ANTHRACENE	NA	-	PHENACETIN	NA	-
ANTHRACENE ABOCLOB 1015	ND	1	PHENANTHRENE	ND	1
AROCLOR 1016	NA	-	PHENOL	ND	1
AROCLOR 1221 AROCLOR 1232	NA	-	PRONAMIDE	NA	-
AROCLOR 1232 AROCLOR 1242	NA	-	PROPACHLOR	NA	-
AROCLOR 1242 AROCLOR 1248	NA	-	PYRENE	ND	1
AROCLOR 1248 AROCLOR 1254	NA	-	PYRIDINE	NA	-
AROCLOR 1254 AROCLOR 1260	NA	-	SIMAZINE	NA	-
ATRAZINE	NA NA	-	TOXAPHENE MIXTURE	NA	-
AZOBENZENE	NA	-	TRANS NONACHLOR	NA	-
BENZIDINE	NA NA	-			
BENZO(A)ANTHRACENE	NA ND	-			
BENZO(A)PYRENE	ND ND	1 2			
- A. A	110	4			

DL - Method detection limit

B - Indicates compound was detected in lab blank as well as in the sample

J - Indicates an estimated value for tentatively identified components, or compounds detected and identified but present at a concentration less than the practical quantitation limit

SAMPLE ID: TS-1.42 SAMPLING DATE: 10/18/95

SAMPLING DATE:	10/18/95				
ANALYTE	RESULT (ug/L)	DL	ANALYTEcontinued	RESULT (ug/L)	<u>DL</u>
			DENTO(DIELLIODANTUENE	ND	10
1,2,4,-TRICHLOROBENZENE	ND	10	BENZO(B)FLUORANTHENE	ND	10
1,2,4,5-TETRACHLOROBENZENE	NA	-	BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE	ND	10
1,2-DICHLOROBENZENE	ND	10	BENZOIC ACID	ND	50
1,2-DIPHENYLHYDRAZINE	NA ND	10	BENZYL ALCOHOL	ND	10
1,3,-DICHLOROBENZENE	ND ND	10	BIS (2-CHLOROETHOXY) METHANE	ND	10
1,4,-DICHLOROBENZENE	NA NA	-	BIS (2-CHLOROETHYL) ETHER	ND	10
1-CHLORONAPTHALENE	NA NA	•	BIS (2-CHLOROISOPROPY) ETHER	ND	10
1-NAPTHYLAMINE	NA NA	-	BIS(2-ETHYLHEXYL)PHTHALATE	4 J B	10
2,2,3,3,4,5,6,6-OCTACHLOROBIPHENYL	NA NA	-	BUTYL BENZYL PHTHALATE	ND	10
2,2,3,3,4,4,6-HEPTACHLOROBIPHENYL	NA NA	-	BUTACHLOR	NA	-
2,2,4,4,5,6-HEXACHLOROBIPHENYL	NA NA	_	CARBAZOLE	ND	10
2,2,3,4,6-PENTACHLOROBIPHENYL 2,2,4,4-TETRACHLOROBIPHENYL	NA NA	_	CHLORDANE (TOTAL)	NA	-
	NA NA	_	CHRYSENE	ND	10
2,3,4,6-TETRACHLOROPHENOL	NA NA	-	DI(2 ETHYLHEXYL) ADIPATE	NA	-
2,4,5-TRICHLOROBIPHENYL 2,4,5-TRICHLOROPHENOL	ND	50	DI(2 ETHYLHEXYL) PHTHALATE	NA	-
2,4,6-TRICHLOROPHENOL	ND	10	DI-N-BUTYL PHTHALATE	ND	10
2.3-DICHLOROBIPHENYL	NA	-	DI-N-OCTYL PHTHALATE	ND	10
2,4-DICHLOROPHENOL	ND	10	DIBENZO(A,H)ANTHRACENE	ND	10
2,4-DIMETHYLPHENOL	ND	10	DIBENZO(A,J)ACRIDINE	NA	-
2,4-DINITROPHENOL	ND	50	DIBENZOFURAN	ND	10
2,4-DINITROTOLUENE	ND	10	DIELDRIN	NA	-
2,6-DICHLOROPHENOL	NA	_	DIETHYL PHTHALATE	ND	10
2,6-DINITROTOLUENE	ND	10	DIMETHYL PHTHALATE	ND	10
2-CHLORONAPHTHALENE	ND	10	DIPHENYLAMINE	NA	-
2-CHLOROBIPHENYL	NA	-	ENDRIN	NA	-
2-CHLOROPHENOL	ND	10	FLUORANTHENE	ND	10
2-METHYLNAPHTHALENE	ND	10	FLUORENE	ND	10
2-METHYLPHENOL	ND	10	GAMMA-CHLORDANE	NA	-
2-NAPTHYLAMINE	NA	-	HEPTACHLOR	NA	-
2-NITROANILINE	ND	50	HEPTACHLOR EPOXIDE	NA	-
2-NITROPHENOL	ND	10	HEXACHLOROBENZENE	ND	10
2-PICOLINE	NA	-	HEXACHLOROBUTADIENE	ND	10
3,3-DICHOLOROBENZIDINE	ND	50	HEXACHLOROCYCLOPENTADIENE	ND	10
3-METHYLCHOLANTHRENE	NA	-	HEXACHLOROETHANE	ND	10 10
3-NITROANILINE	ND	50	INDENO(1,2,3-CD)PYRENE	ND	10
4,6-DINITRO-2-METHYLPHENOL	ND	50	ISOPHORONE	ND	-
4-AMINOBIPHENYL	NA	-	LINDANE	NA ND	10
4-BROMOPHENYL PHENYL ETHER	ND	10	N-NITROSO-DI-N-PROPYLAMINE	NA NA	-
4-CHLORO-3-METHYLPHENOL	ND	10	N-NITROSODI-N-BUTYLAMINE	NA NA	_
4-CHLOROANILINE	ND	25	N-NITROSODIMETHYLAMINE	ND	10
4-CHLOROPHENYL PHENYL ETHER	ND	10	N-NITROSODIMETHYLAMINE	ND	10
4-METHYLPHENOL	ND	10	N-NITROSODIPHENYLAMINE	NA NA	
4-NITROANILINE	ND	50	N-NITROSOPIPERIDINE NAPHTHALENE	ND	10
4-NITROPHENOL	ND	50	NITROBENZENE	ND	10
7,12-DIMETHYLBENZO(A)ANTHRACENE	NA NA	-	METOLACHLOR	NA	-
A-,A-DIMETHYLPENETHYLAMINE	ND	10	METHOXYCHLOR	NA	-
ACENAPHTHENE	ND	10	METRIBUZIN	NA	-
ACENAPHTHYLENE	NA NA	-	P-DIMETHYLAMINOAZOBENZENE	NA	-
ACETOPHENONE	NA	_	PENTACHLOROBENZENE	NA	-
ALACHLOR ALDRINE	NA.	-	PENTACHLORONITROBENZENE	NA	-
ALPHA-CHLORDANE	NA	-	PENTACHLOROPHENOL	ND	50
ANILINE	ND	25	PHENACETIN	NA	-
ANTHRACENE	ND	10	PHENANTHRENE	ND	10
AROCLOR 1016	ND	0.5	PHENOL	ND	10
AROCLOR 1221	ND	0.5	PRONAMIDE	NA	-
AROCLOR 1232	ND	0.5	PROPACHLOR	NA	-
AROCLOR 1242	ND	0.5	PYRENE	ND	10
AROCLOR 1248	ND	0.5	PYRIDINE	ND	10
AROCLOR 1254	ND	0.5	SIMAZINE	NA NA	-
AROCLOR 1260	ND	0.5	TOXAPHENE MIXTURE	NA NA	•
ATRAZINE	NA	-	TRANS NONACHLOR	NA	-
AZOBENZENE	ND	10			
BENZIDINE	ND	50			
BENZO(A)ANTHRACENE	ND	10			
BENZO(A)PYRENE	ND	10			

DL - Method detection limit B - Indicates compound was detected in lab blank as well as in the sample

J - Indicates an estimated value for tentatively identified components, or compounds detected and identified but present at a concentration less than the practical quantitation limit

SAMPLE ID: **BURNING GROUND** SAMPLING DATE: 3/17/95 **ANALYTE** RESULT (ug/L) DL ANALYTE-continued RESULT (ug/L) DL 1,2,4,-TRICHLOROBENZENE NA BENZO(B)FLUORANTHENE ND 0.02 BENZO(B)FLUORANTHENE
BENZO(G,H.))PERYLENE
BENZO(K)FLUORANTHENE
BENZOIC ACID
BENZYL ALCOHOL
BIS (2-CHLOROETHOXY) METHANE
BIS (2-CHLOROETHYL) ETHER
BIS (2-CHLOROISOPROPY) ETHER 1,2,4,5-TETRACHLOROBENZENE NA ND 0.02 1,2-DICHLOROBENZENE NA ND 0.02 1,2-DIPHENYLHYDRAZINE NA NA 1,3,-DICHLOROBENZENE 1,4,-DICHLOROBENZENE 1-CHLORONAPTHALENE NΑ NA NA NA NΑ NΑ 1-NAPTHYLAMINE NA NΑ 2,2,3,3,4,5,6,6-OCTACHLOROBIPHENYL ND 0.5 BIS(2-ETHYLHEXYL)PHTHALATE NA 2,2,3,3,4,4,6-HEPTACHLOROBIPHENYL ND 0.5 BUTYL BENZYL PHTHALATE 0.13 J B 0.012,2,4,4,5,6-HEXACHLOROBIPHENYL ND 0.5 BUTACHLOR ND 0.03 2,2,3,4,6-PENTACHLOROBIPHENYL CARBAZOLE CHLORDANE (TOTAL) NΑ NΑ 2,2,4,4-TETRACHLOROBIPHENYL ND 0.5 ND 0.02 2,3,4,6-TETRACHLOROPHENOL 2,4,5-TRICHLOROBIPHENYL CHRYSENE DI(2 ETHYLHEXYL) ADIPATE DI(2 ETHYLHEXYL) PHTHALATE NA ND 0.02 ND 0.5 0.02 J B 0.02 2,4,5-TRICHLOROPHENOL 2,4,6-TRICHLOROPHENOL 2,3-DICHLOROBIPHENYL NA 3.39 B 0.03 DI-N-BUTYL PHTHALATE NA 0.01 J B 0.02 ND DI-N-OCTYL PHTHALATE 0.5 2.4-DICHLOROPHENOL NΑ DIBENZO(A,H)ANTHRACENE ND 0.02 2,4-DIMETHYLPHENOL DIBENZO(A,J)ACRIDINE DIBENZOFURAN NΑ NA 2,4-DINITROPHENOL NA NA 2,4-DINITROTOLUENE NA DIELDRIN ND 0.02 2,6-DICHLOROPHENOL NA DIETHYL PHTHALATE 0.13 J B 0.01 2,6-DINITROTOLUENE NΔ DIMETHYL PHTHALATE ND 0.01 2-CHLORONAPHTHALENE NA DIPHENYLAMINE NA 2-CHLOROBIPHENYL ND FNDRIN 0.05 ND 0.35 2-CHLOROPHENOL
2-METHYLNAPHTHALENE
2-METHYLPHENOL
2-NAPTHYLAMINE
2-NITROANILINE FLUORANTHENE FLUORENE NA NA NΑ ND 0.01 NΑ GAMMA-CHLORDANE 0.02 HEPTACHLOR NA ND 0.04 NA HEPTACHLOR EPOXIDE ND 0.13 2-NITROPHENOL NA HEXACHLOROBENZENE ND 0.01 2-PICOLINE NA HEXACHLOROBUTADIENE NA 3,3-DICHOLOROBENZIDINE NA HEXACHLOROCYCLOPENTADIENE ND 0.04 3-METHYLCHOLANTHRENE NA HEXACHLOROETHANE NA 3-NITROANILINE INDENO(1,2,3-CD)PYRENE ISOPHORONE NA ND 0.03 4,6-DINITRO-2-METHYLPHENOL NA NA 4-AMINOBIPHENYL NA LINDANE ND 0.02 LINDANE
N-NITROSO-DI-N-PROPYLAMINE
N-NITROSODI-N-BUTYLAMINE
N-NITROSODIMETHYLAMINE
N-NITROSODIMETHYLAMINE 4-BROMOPHENYL PHENYL ETHER NA NA 4-CHLORO-3-METHYLPHENOL NΑ 4-CHLOROANILINE 4-CHLOROPHENYL PHENYL ETHER NA NΑ NA NA NA 4-METHYLPHENOL NA N-NITROSODIPHENYLAMINE NA 4-NITROANILINE NA N-NITROSOPIPERIDINE NA 4-NITROPHENOL NA NAPHTHALENE NA 7,12-DIMETHYLBENZO(A)ANTHRACENE NA **NITROBENZENE** NA A-, A-DIMETHYLPENETHYLAMINE NA **METOLACHLOR** ND 0.09 ACENAPHTHENE NA METHOXYCHLOR ND 0.01 METRIBUZIN
P-DIMETHYLAMINOAZOBENZENE
PENTACHLOROBENZENE
PENTACHLORONITROBENZENE ACENAPHTHYLENE ND 0.01 NĐ 0.03 **ACETOPHENONE** NA NA ALACHLOR ALDRINE ND 0.02 NA ND 0.03 NA ALPHA-CHLORDANE PENTACHLOROPHENOL ND 0.01 ND 0.04 ANILINE **PHENACETIN** NA NA ANTHRACENE ND 0.01 **PHENANTHRENE** ND 0.01 AROCLOR 1016 NA PHENOL NA AROCLOR 1221 NA **PRONAMIDE** NA AROCLOR 1232 NA **PROPACHLOR** ND 0.03 AROCLOR 1242 NA **PYRENE** ND 0.01 AROCLOR 1248 NA **PYRIDINE** NA AROCLOR 1254 NA SIMAZINE ND 0.11 AROCLOR 1260 ATRAZINE NA TOXAPHENE MIXTURE ND 0.01 TRANS NONACHLOR 0.02 AZORENZENE NA BENZIDINE BENZO(A)ANTHRACENE ND 0.01 BENZO(A)PYRENE 0.01

DL - Method detection limit

B - Indicates compound was detected in lab blank as well as in the sample

J - Indicates an estimated value for tentatively identified components, or compounds detected and identified but present at a concentration less than the practical quantitation limit

SWSC SAMPLE ID: 3/17/95 SAMPLING DATE:

SAMPLING DATE.		0/11/00				
	ANALYTE	RESULT (ug/L)	DL	ANALYTEcontinued	RESULT (ug/L)	<u>DL</u>
	4 0 4 TOLOU ODODENZENE	NA		BENZO(B)FLUORANTHENE	ND	0.02
	1,2,4,-TRICHLOROBENZENE		•	BENZO(G,H,I)PERYLENE	ND	0.02
	1,2,4,5-TETRACHLOROBENZENE	NA NA	•	BENZO(K)FLUORANTHENE	ND	0.02
	1,2-DICHLOROBENZENE	NA	•		NA NA	0.02
	1,2-DIPHENYLHYDRAZINE	NA	-	BENZOIC ACID		-
	1,3,-DICHLOROBENZENE	NA	•	BENZYL ALCOHOL	NA NA	-
	1,4,-DICHLOROBENZENE	NA	•	BIS (2-CHLOROETHOXY) METHANE	NA NA	-
	1-CHLORONAPTHALENE	NA	-	BIS (2-CHLOROETHYL) ETHER	NA	-
	1-NAPTHYLAMINE	NA		BIS (2-CHLOROISOPROPY) ETHER	NA	-
	2,2,3,3,4,5,6,6-OCTACHLOROBIPHENYL	ND	0.5	BIS(2-ETHYLHEXYL)PHTHALATE	NA .	-
	2,2,3,3,4,4,6-HEPTACHLOROBIPHENYL	ND	0.5	BUTYL BENZYL PHTHALATE	0.26 J B	0.01
	2,2,4,4,5,6-HEXACHLOROBIPHENYL	ND	0.5	BUTACHLOR	ND	0.03
	2,2,3,4,6-PENTACHLOROBIPHENYL	NA	-	CARBAZOLE	NA	-
	2,2,4,4-TETRACHLOROBIPHENYL	ND	0.5	CHLORDANE (TOTAL)	ND	0.02
	2,3,4,6-TETRACHLOROPHENOL	NA	-	CHRYSENE	ND	0.02
	2,4,5-TRICHLOROBIPHENYL	ND	0.5	DI(2 ETHYLHEXYL) ADIPATE	ND	0.02
	2,4,5-TRICHLOROPHENOL	NA	-	DI(2 ETHYLHEXYL) PHTHALATE	ND	0.03
	2,4,6-TRICHLOROPHENOL	NA	-	DI-N-BUTYL PHTHALATE	0.10 J B	0.02
	2,3-DICHLOROBIPHENYL	ND	0.5	DI-N-OCTYL PHTHALATE	NA	-
	2,4-DICHLOROPHENOL	NA	-	DIBENZO(A,H)ANTHRACENE	ND	0.02
	2,4-DIMETHYLPHENOL	NA	-	DIBENZO(A,J)ACRIDINE	NA	-
	2,4-DINITROPHENOL	NA NA	-	DIBENZOFURAN	NA	-
		NA NA	_	DIELDRIN	ND	0.02
	2,4-DINITROTOLUENE	NA NA	-	DIETHYL PHTHALATE	0.35 J B	0.01
	2,6-DICHLOROPHENOL	NA NA	-	DIMETHYL PHTHALATE	ND .	0.01
	2,6-DINITROTOLUENE	NA NA	-	DIPHENYLAMINE	NA NA	-
	2-CHLORONAPHTHALENE	ND ND	0.05	ENDRIN	ND	0.35
	2-CHLOROBIPHENYL		0.05		NA NA	0.00
	2-CHLOROPHENOL	NA NA	-	FLUORANTHENE	ND	0.01
	2-METHYLNAPHTHALENE	NA	-	FLUORENE	ND	0.02
	2-METHYLPHENOL	NA	-	GAMMA-CHLORDANE		0.02
	2-NAPTHYLAMINE	NA	-	HEPTACHLOR	ND	
	2-NITROANILINE	NA	-	HEPTACHLOR EPOXIDE	ND	0.13
	2-NITROPHENOL	NA	-	HEXACHLOROBENZENE	ND	0.01
	2-PICOLINE	NA	•	HEXACHLOROBUTADIENE	NA	
	3,3-DICHOLOROBENZIDINE	NA	-	HEXACHLOROCYCLOPENTADIENE	ND	0.04
	3-METHYLCHOLANTHRENE	NA .	-	HEXACHLOROETHANE	NA	-
	3-NITROANILINE	NA	-	INDENO(1,2,3-CD)PYRENE	ND	0.03
	4,6-DINITRO-2-METHYLPHENOL	NA	-	ISOPHORONE	NA	+
	4-AMINOBIPHENYL	NA	-	LINDANE	ND	0.02
	4-BROMOPHENYL PHENYL ETHER	NA	-	N-NITROSO-DI-N-PROPYLAMINE	NA	-
	4-CHLORO-3-METHYLPHENOL	NA	-	N-NITROSODI-N-BUTYLAMINE	NA	-
	4-CHLOROANILINE	NA	-	N-NITROSODIMETHYLAMINE	NA	-
	4-CHLOROPHENYL PHENYL ETHER	NA	-	N-NITROSODIMETHYLAMINE	NA	-
	4-METHYLPHENOL	NA	-	N-NITROSODIPHENYLAMINE	NA	-
	4-NITROANILINE	NA	-	N-NITROSOPIPERIDINE	NA	-
	4-NITROPHENOL	NA	-	NAPHTHALENE	NA	-
	7,12-DIMETHYLBENZO(A)ANTHRACENE	NA	-	NITROBENZENE	NA	-
	A-,A-DIMETHYLPENETHYLAMINE	NA NA		METOLACHLOR	ND	0.09
	ACENAPHTHENE	NA	-	METHOXYCHLOR	ND	0.01
	ACENAPHTHYLENE	ND	0.01	METRIBUZIN	ND	0.03
		NA	-	P-DIMETHYLAMINOAZOBENZENE	NA	•
	ACETOPHENONE ALACHLOR	ND	0.02	PENTACHLOROBENZENE	NA.	-
		ND	0.02	PENTACHLORONITROBENZENE	NA	-
	ALDRINE			PENTACHLOROPHENOL	ND	0.04
	ALPHA-CHLORDANE	ND	0.01	PHENACETIN	NA NA	-
	ANILINE	NA NA		PHENANTHRENE	ND	0.01
	ANTHRACENE	ND	0.01		NA NA	0.01
	AROCLOR 1016	NA	-	PHENOL		-
	AROCLOR 1221	NA	-	PRONAMIDE	NA NB	-
	AROCLOR 1232	NA	-	PROPACHLOR	ND	0.03
	AROCLOR 1242	NA	-	PYRENE	ND	0.01
	AROCLOR 1248	NA	-	PYRIDINE	NA	0.44
	AROCLOR 1254	NA	-	SIMAZINE	ND	0.11
	AROCLOR 1260	NA	-	TOXAPHENE MIXTURE	ND	1
	ATRAZINE	ND	0.01	TRANS NONACHLOR	ND	0.02
	AZOBENZENE	NA	-			
	BENZIDINE	NA	-			
	BENZO(A)ANTHRACENE	ND	0.01			
	BENZO(A)PYRENE	ND	0.01			
	, ,					

DL - Method detection limit

B - Indicates compound was detected in tab blank as well as in the sample
J - Indicates an estimated value for tentatively identified components, or compounds detected and identified but present at a concentration less than the practical quantitation limit

SAMPLE ID:

HOLLOW

SAMPLE ID: HOLLOW				
SAMPLING DATE:	3/17/95			
<u>ANALYTE</u>	RESULT (ug/L)	DL	ANALYTE-continued RESULT (ug/L) D	L
1,2,4,-TRICHLOROBENZENE	NA	_	BENZO(B)FLUORANTHENE ND 0,0	02
1,2,4,5-TETRACHLOROBENZENE	NA	-	BENZO(G,H,I)PERYLENE ND 0.0	
1,2-DICHLOROBENZENE	NA	-	BENZO(K)FLUORANTHENE ND 0.0	
1,2-DIPHENYLHYDRAZINE	NA	-	BENZOIC ACID NA	
1,3,-DICHLOROBENZENE	NA	_	BENZYL ALCOHOL NA -	
1,4,-DICHLOROBENZENE	NA	_	BIS (2-CHLOROETHOXY) METHANE NA -	
1-CHLORONAPTHALENE	NA	_	BIS (2-CHLOROETHYL) ETHER NA -	
1-NAPTHYLAMINE	NA	-	BIS (2-CHLOROISOPROPY) ETHER NA -	
2,2,3,3,4,5,6,6-OCTACHLOROBIPHENYL	ND	0.5	BIS(2-ETHYLHEXYL)PHTHALATE NA 0.0	u.s
2,2,3,3,4,4,6-HEPTACHLOROBIPHENYL	ND	0.5	BUTYL BENZYL PHTHALATE 0.17 J B 0.0	
2,2,4,4,5,6-HEXACHLOROBIPHENYL	ND	0.5	BUTACHLOR ND 0.0	
2,2,3,4,6-PENTACHLOROBIPHENYL	NA	-	CARBAZOLE NA -	
2,2,4,4-TETRACHLOROBIPHENYL	ND	0.5	CHLORDANE (TOTAL) ND 0.0	na
2,3,4,6-TETRACHLOROPHENOL	NA	-	CHRYSENE ND 0.0	
2,4,5-TRICHLOROBIPHENYL	ND	0.5	DI(2 ETHYLHEXYL) ADIPATE 0.02 J B 0.0	
2,4,5-TRICHLOROPHENOL	NA	-	DI(2 ETHYLHEXYL) PHTHALATE 8.16 B 0.0	
2,4,6-TRICHLOROPHENOL	NA.	_	\	
2,3-DICHLOROBIPHENYL	ND	0.5		J2
2,4-DICHLOROPHENOL	NA NA	0.5		-
2,4-DIMETHYLPHENOL	NA NA	-	DIBENZO(A,H)ANTHRACENE ND 0.0 DIBENZO(A,J)ACRIDINE NA -	J2
2,4-DINITROPHENOL	NA.	-		•
2,4-DINITROTOLUENE	NA.	-	DIBENZOFURAN NA -	
2,6-DICHLOROPHENOL	NA NA	-	DIELDRIN ND 0.0	
2,6-DINITROTOLUENE	NA NA	-	DIETHYL PHTHALATE 0.48 J B 0.0	
2-CHLORONAPHTHALENE		-	DIMETHYL PHTHALATE ND 0.0	31
2-CHLOROBIPHENYL	NA ND		DIPHENYLAMINE NA -	
2-CHLOROPHENOL		0.05	ENDRIN ND 0.3	35
2-METHYLNAPHTHALENE	NA NA	-	FLUORANTHENE NA -	
	NA NA	-	FLUORENE ND 0.0	
2-METHYLPHENOL	NA	-	GAMMA-CHLORDANE ND 0.0	
2-NAPTHYLAMINE	NA	-	HEPTACHLOR ND 0.0	
2-NITROANILINE	NA	-	HEPTACHLOR EPOXIDE ND 0.1	
2-NITROPHENOL	NA	-	HEXACHLOROBENZENE ND 0.0)1
2-PICOLINE	NA	-	HEXACHLOROBUTADIENE NA -	
3,3-DICHOLOROBENZIDINE	NA	-	HEXACHLOROCYCLOPENTADIENE ND 0.0)4
3-METHYLCHOLANTHRENE	NA	-	HEXACHLOROETHANE NA -	
3-NITROANILINE	NA	-	INDENO(1,2,3-CD)PYRENE ND 0.0	23
4,6-DINITRO-2-METHYLPHENOL	NA	-	ISOPHORONE NA -	
4-AMINOBIPHENYL	NA	-	LINDANE ND 0.0	2
4-BROMOPHENYL PHENYL ETHER	NA	-	N-NITROSO-DI-N-PROPYLAMINE NA -	
4-CHLORO-3-METHYLPHENOL	NA	-	N-NITROSODI-N-BUTYLAMINE NA -	
4-CHLOROANILINE	NA	-	N-NITROSODIMETHYLAMINE NA -	
4-CHLOROPHENYL PHENYL ETHER	NA	-	N-NITROSODIMETHYLAMINE NA -	
4-METHYLPHENOL	NA	-	N-NITROSODIPHENYLAMINE NA -	
4-NITROANILINE	NA	-	N-NITROSOPIPERIDINE NA -	
4-NITROPHENOL	NA	-	NAPHTHALENE NA -	
7,12-DIMETHYLBENZO(A)ANTHRACENE	NA	-	NITROBENZENE NA -	
A-,A-DIMETHYLPENETHYLAMINE	NA	-	METOLACHLOR ND 0.0	9
ACENAPHTHENE	NA	-	METHOXYCHLOR ND 0.0)1
ACENAPHTHYLENE	ND	0.01	METRIBUZIN ND 0.0)3
ACETOPHENONE	NA	-	P-DIMETHYLAMINOAZOBENZENE NA -	
ALACHLOR	ND	0.02	PENTACHLOROBENZENE NA -	
ALDRINE	ND	0.03	PENTACHLORONITROBENZENE NA -	
ALPHA-CHLORDANE	ND	0.01	PENTACHLOROPHENOL ND 0.0)4
ANILINE	NA	-	PHENACETIN NA -	
ANTHRACENE	ND	0.01	PHENANTHRENE ND 0.0)1
AROCLOR 1016	NA	-	PHENOL NA -	
AROCLOR 1221	NA	-	PRONAMIDE NA -	
AROCLOR 1232	NA	-	PROPACHLOR ND 0.0	3
AROCLOR 1242	NA	-	PYRENE ND 0.0	
AROCLOR 1248	NA	-	PYRIDINE NA -	
AROCLOR 1254	NA	-	SIMAZINE ND 0.1	11
AROCLOR 1260	NA	-	TOXAPHENE MIXTURE ND 1	
A TID A TIME				

TOXAPHENE MIXTURE
TRANS NONACHLOR

ND ND

1 0.02

BENZIDINE BENZO(A)ANTHRACENE BENZO(A)PYRENE

AROCLOR 1260 ATRAZINE AZOBENZENE

0.01

0.01

0.01

ND

NA

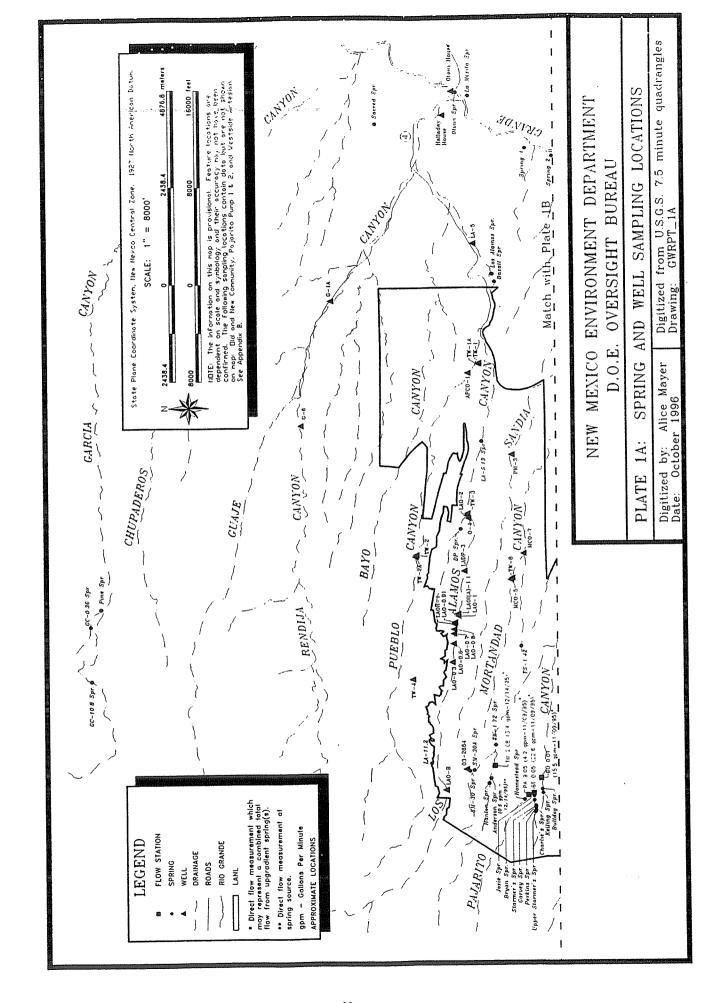
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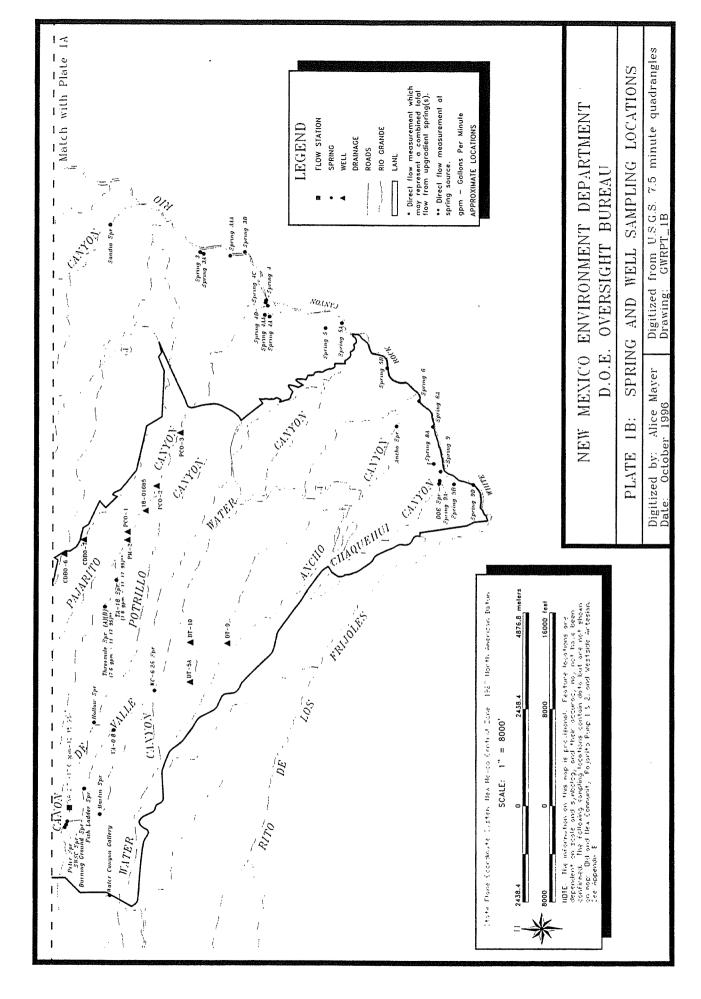
ND

DL - Method detection limit

B - Indicates compound was detected in lab blank as well as in the sample

J - Indicates an estimated value for tentatively identified components, or compounds detected and identified but present at a concentration less than the practical quantitation limit





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